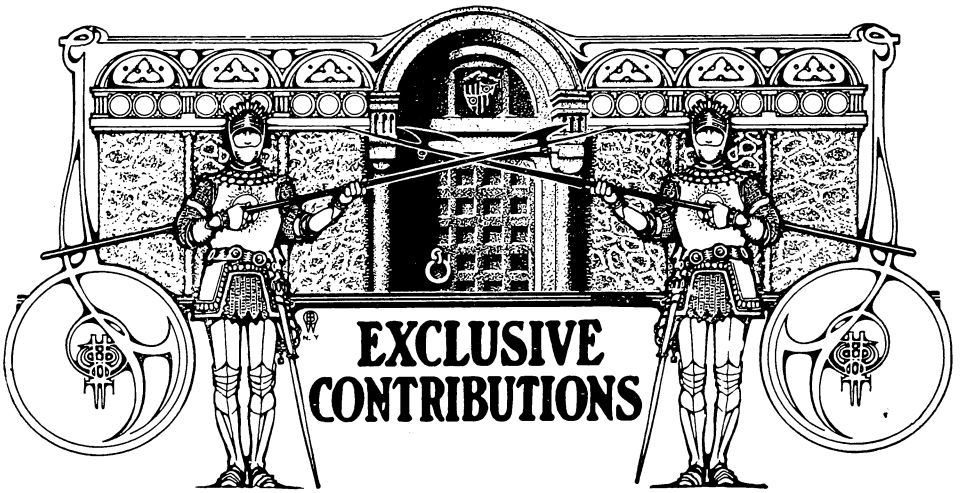

Dental Radiography.*

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CHAPTER VII.

The Uses of the Radiograph in Dentistry.

The use of the radiograph in the practice of modern dentistry is almost limitless. Some of the cases hereinafter mentioned are such as the general practitioner of dentistry might not be called upon to diagnose or treat oftener than once or twice in a lifetime, if at all. But by far the greater number of them are such as are met repeatedly in the practice of dentistry.

The radiograph may be used in the following cases: (1) In cases of delayed eruption, to determine the presence or absence of the unerupted teeth. (2) In cases where deciduous teeth are retained long after the time when they should have been shed, to learn if the succedaneous teeth be present. (3) To learn if the roots of children's teeth be fully formed. (4) To determine whether a tooth be one of the primary or secondary set. (5) To determine when to extract temporary teeth. (6) To show the orthodontist when he may move the coming permanent teeth by moving the deciduous teeth. (7) To observe moving teeth. (8) In cases of supernumerary teeth. (9) In cases of impacted

teeth as an aid in extraction. (10) To determine the number of canals in some teeth. (11) As an aid in filling the canals of teeth with large apical foramina. (12) To learn if canals are open and enlarged to the apex before filling and to observe the canal filling after the operation. (13) To determine whether an opening leading from a pulp chamber be a canal or a perforation. (14) In cases of pulp stones (nodules). (15) In cases of secondary dentine being deposited and pinching the pulp. (16) To learn if the filling in the crown encroaches on the pulp. (17) In cases of teeth with large metal fillings or shell crowns which do not respond to the cold test, to learn if the canals are filled. (18) To learn if apical sensitiveness is due to a large apical foramen or an unremoved, undevitalized remnant of pulp. (19) In cases of chronic pericementitis ("lame tooth"). (20) In cases of alveolar abscess to determine which tooth is responsible for the abscess. (21) In cases of alveolar abscess to determine the extent of the destruction of tissue—bony and tooth. (22) In cases of alveolar abscess to learn how many teeth are involved. (23) In cases of abscess of multi-rooted teeth to learn at the apex of which root the abscess exists. (24) In cases of abscesses of crowned teeth to learn whether the canals are properly filled. (25) As an aid in differential diagnosis between alveolar abscess and pyorrhea alveolaris. (26) To observe destruction of tissue due to pyorrhea alveolaris. (27) In cases of pericemental abscess. (28) In cases of persistent suppuration which does not yield to the usual treatment. (In fact in all cases that do not yield promptly to the usual course of treatment.) (29) To observe the course of a fistulous tract. (30) To observe the field of operation before and after apicoectomy. (31) To locate foreign bodies, such as a broach in the pulp canal or tissues at the apex of a tooth; a piece of wooden toothpick in the peridental membrane, etc. (32) To determine the presence or absence of a bit of root imbedded in the gum tissue. (33) To diagnose fracture of a root. (34) To observe the size and shape of the roots of teeth to be used in crown and bridgework. (35) As an aid and safeguard when enlarging canals for posts. (36) To examine bridges about which there is an inflammation. (37) To observe the field before constructing a bridge. (38) To observe planted teeth. (39) In cases of cementoma. (40) In cases of bone "whorls." (41) To locate stones (calculi) in the salivary ducts or glands. (42) In cases of bone cysts. (43) In cases of dentigerous cysts. (44) In cases of tumor, benign or malignant. (45) To observe anomalous conditions, such as the fusion of the roots of two teeth for example. (46) To observe the location and extent of a necrotic or carious condition of bone. (47) To diagnose antral empyema. (48) To observe size, shape and location of the antrum as an aid in opening

into it. (49) To locate foreign bodies, such as tooth roots or broaches, in the antrum. (50) To observe cases of luxation before and after reduction. (51) In cases of fracture of the jaw before and after reduction. (52) In cases of ankylosis of the tempero-mandibular articulation and the joint formed by the tooth in the jaw. (53) To observe the field of operation before and after resection of the mandible—the operation for bad cases of prognathism. (54) In all cases of facial neuralgia with an obscure etiology. (55) To observe the inferior dental canal. (56) In cases of Ludwig's angina. (57) In cases of facial gesticulatory tic (spasmodic twitching of a set of the facial muscles). (58) In cases of periodic headaches. (59) In cases of insomnia, neurasthenia, insanity* and kindred nervous disorders. (60) To allay the fears of a hypochondriac. (61) In cases where the patient cannot open the mouth wide enough for an ocular examination. (62) In research work to study anatomy, the development of teeth, action of bismuth paste, bone production and destruction, changes occurring in the tempero-mandibular articulation when jumping the bite, blood supply to parts, resorption of teeth and the causes for it, etc. (63) As a record of work done.

It is with a mingled feeling of enthusiasm and misgiving that I now attempt to illustrate the above named uses of the radiograph. It is not reasonable to hope that half-tones will show all that can be seen in negatives. As a result, things may be mentioned in the text that cannot be observed in the half-tones; but, be assured, all clinical factors mentioned in the text were observable in the original radiographs.

Thanks to the help rendered by the many radiographers, whose names appear beneath the half-tones, and the practitioners, whose names are mentioned in the text, I will be able to illustrate almost all of the above enumerated uses. I have tried to make this collection of radiographs representative—that is, to have it represent the work of Americans in the field of dental radiography.

In describing cases which have not come under direct personal observation there is, of course, considerable liability to mistakes. I ask my readers to bear this in mind.

It shall be my policy to print as few radiographs as possible to fully demonstrate the different uses. For example, I could print hundreds of different radiographs illustrating the use "in cases of delayed eruption to determine the presence or absence of the unerupted teeth." But only a few will be used, because that is all that is necessary to demonstrate the value of the radiograph in such cases, and to use more would be superfluous in a work of this kind.

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*Dr. Upson—Cleveland.

1. In Cases of Delayed Eruption to Determine the Presence or Absence of the Unerupted Teeth.

Fig. 128. Upper, permanent laterals missing in the mouth of a girl, eighteen years of age. Spaces between the centrals, and the centrals and cuspids. In this case the deformity seemed particularly distressing because, save for the spaces between her teeth, the young lady was positively beautiful.

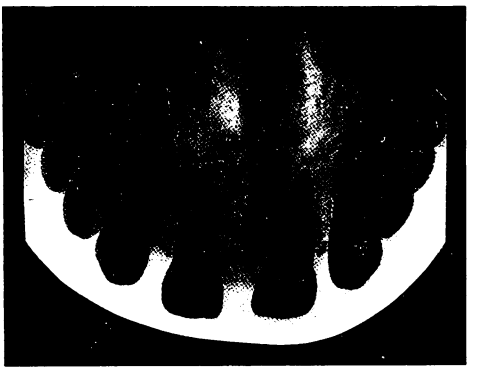


Fig. 128.

Fig. 128. Congenital absence of the upper lateral incisors. Age of patient, eighteen years.

A radiograph (Fig. 128) was made and shows that the laterals are not impacted in the upper maxilla. It therefore became necessary to move the centrals together and construct a bridge. Had the laterals been present in the maxilla, and space made for them by moving the centrals together, they would probably have erupted into their places. Had they not erupted after space had been made for them the tissues covering them could have been dissected away, holes drilled into the teeth, little hooks cemented into these holes and the teeth elevated orthodontically.

Fig. 129. When there seems to be a congenital absence of a tooth from the jaw it is expedient—which is expressing it mildly—to use the radiograph before constructing and setting a bridge. Failure to do this might result in what is shown in figure 129—an unerupted cuspid covered with a bridge. Such a condition as this may or may not cause local inflammation, neuralgia, or any of a series of inflammatory and nerve disorders. In this case the bridge covers not only an unerupted cuspid, but also a bit of tooth root.

Fig. 130.

In a case presented to me an upper permanent cuspid was seen occupying the place of the lateral incisor, and a temporary cuspid was in the space which should have been occupied by the permanent cuspid. A radio-

Fig. 129.

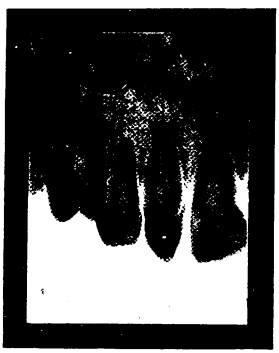


Fig. 130.

Fig. 129. Bridge from central to first bicuspid. Unerupted cuspid. The arrow points to a bit of tooth root. (Radiograph by Ream of Chicago.)

Fig. 130. An upper cuspid in the place of the lateral. A temporary cuspid in the place which should be occupied by permanent cuspid. The lateral missing from the jaw.

Fig. 131.

Fig. 132.

Fig. 131. Congenital absence of the upper bicuspid. Observe the orthodontia appliance in position. (Radiograph by Lewis of Chicago.)

Fig. 132. Delayed eruption of an upper second bicuspid. The orthodontia appliance in position is being used to make space in the arch for the delayed tooth. (Radiograph by Lewis of Chicago.)

graph was made (figure 130) to locate the missing lateral. It was not present in the jaw. Though I am not absolutely sure of this, I nevertheless feel quite certain that the permanent lateral was mistaken for a temporary tooth and extracted when the patient was about seven or eight years old—a mistake which could not have happened had the dentist used radiographs.

Figs. 131 and 132. Figure 131 proves the absence of a second bicuspid and shows that bridgework must be resorted to, to fill the space. Figure 132 discloses the presence of a second bicuspid and shows that it will not be necessary to make a

Fig. 133.

Fig. 133. A badly impacted lower second bicuspid, with no space at all for it in the dental arch. (Radiograph by Pancoast of Philadelphia.)

bridge. As they appeared before radiographs were taken the cases, from which figures 131 and 132 were made, were similar.

Fig. 133. Figure 133, a case of Dr. Cryer's, shows a badly impacted lower second bicuspid with no space at all for it in the dental arch.

Fig. 134. With the exception of the third molars no teeth are so liable to be delayed in their eruption as the upper cuspids. For this reason, when making a

radiograph to determine the presence or absence of an unerupted cuspid or a third molar, I feel tolerably sure, before I make the picture, that the tooth will be found somewhere in the jaw. When the missing tooth is a central, lateral, bicuspid, or lower cuspid, I am in doubt as to what to expect. My experience teaches me that when these teeth are missing they are just as likely to be entirely absent from the jaw as present in it, and simply unerupted. So far, I have never seen either long delayed eruption or congenital absence of the first or second molars.

Fig. 134.

Fig 134. Age of patient, fourteen. An unerupted malposed cuspid. No room for it in the dental arch. Observe the tipping of the lateral, which is probably due to the pressure of the cuspid against the apex of its root.

Fig. 134 is representative of a class of delayed eruption that is most common. I could print as many as forty or more radiographs of such cases. Fig. 123 was a beautiful example. The age of the patient in this particular case (Fig. 134) was some months over fourteen. The radiograph was made for an orthodontist who was just beginning treatment of the case. There was no evidence of the presence of the cuspid and no room for it to erupt. When the arch was broadened and space made for it the cuspid erupted. It required some mechanical guidance to make it come into its exactly proper position.

The mere making of space for them in the arch will usually result in the eruption of unerupted teeth, unless they are badly malposed. If, after space is made, the tooth does not move, the gum and process over it should be slit surgically. If this does not suffice to induce eruption, the soft parts and process must be cut away, and sometimes it may be necessary to resort to the use of orthodontia appliances to assist eruption, as formerly suggested.

2. In Cases Where Deciduous Teeth are Retained Long After the Time When They Should Have Been Shed, to Learn if the Succedaneous Teeth be Present.

Fig. 135.

Case—Girl, age seventeen, large cavity in upper, second, deciduous molar. Whether to fill this tooth or extract it depended on whether there was a second bicuspid to take its place in case of extraction. It was not at all loosened and there was no visible evidence of the presence of the suc-

Fig. 135.

Fig. 136.

Fig. 135. Age of patient, seventeen. Retained upper, second, temporary molar. The radiograph shows that the second bicuspid is present in the jaw.

Fig. 136. Age of patient, twenty-one. Retained lower, second, temporary molar with a large cavity in the crown of the tooth and the roots almost entirely resorbed, despite the fact that there is no oncoming second bicuspid.

ceeding bicuspid. Fig. 135, however, shows the bicuspid to be present. The half-tone may not do so, but the negative now before me has perspective enough for me to see that the bicuspid is being deflected toward the lingual. The deciduous tooth was extracted and the bicuspid erupted promptly.

Fig. 136.

Case—young man, age twenty-one, lower, second, deciduous molar with pulp exposed. Question: Should the tooth be treated, filled and retained in the mouth, or extracted to make room for the second bicuspid? Figure 136 demonstrates the futility of attempting to treat the tooth—its roots are almost entirely resorbed despite the fact that there is no succedaneous tooth in the jaw—and shows also that there is no bicuspid to take its place. Extraction and bridgework are indicated.

Fig. 137.

Figure 137 shows two retained temporary upper cuspids with the permanent cuspids impacted and malposed.

Fig. 138. Figure 138 shows two retained, primary, lower central incisors with no sign of the permanent centrals. Age of patient, seventeen.

Figs. 139 and 140. Case—a young man, age twenty-two; with a retained, temporary, lower, second molar. The temporary tooth was too short to reach its antagonists in occlusion. For this reason the patient, a dental student, wished to have it crowned. Before making the crown, a radiograph was taken (Fig.

Fig. 137.

Fig. 138.

Fig 137. Two retained temporary cuspids, with the permanent cuspids impacted and malposed. (Radiograph by Lewis, of Chicago.)
Fig. 138. Two retained temporary, lower, central incisors. No permanent centrals present. Age of patient, seventeen. (Radiograph by Blum, of New York City.)

139) after the development of which it was seen that the making of a crown was not indicated. From the appearance of the radiograph one might suppose that the temporary tooth was loose—its roots being almost entirely resorbed. But such was not the case.

Figure 140 is a radiograph of the same case one month after the extraction of the temporary molar. Notice how rapidly the bicuspid is erupting into its place. The force of eruption, which had been held in abeyance for about eleven years, became promptly active upon removal of the abating object.

Figs. 141 and 142. Case—young man, age twenty-one. A retained, temporary, upper cuspid with no observable sign of the succedaneous cuspid. A radiograph was made (Fig. 141), but, being a poor one, it failed to show the looked-for tooth. Yet from the reading of this radiograph I was able to state with a moderate degree of certainty that the cuspid was present in the jaw. If the

tooth itself cannot be seen what is there in the picture to lead one to believe that the permanent cuspid is present? The arrow points to the upper end of a dark line. The dark line represents dense bone and such a line almost always is to be noted in radiographs of impacted teeth.

Fig. 139. Fig. 140.

Fig. 139. Retained temporary, lower, second molar, with the succedaneous tooth beneath it. Age of patient, twenty-two. The dark spots in the temporary tooth and two permanent molars are metal fillings. All of the mesial root and most of the distal root of the temporary tooth are absorbed.

Fig. 140. The same as Fig 139 one month after extraction of the temporary tooth. Observe how rapidly the bicuspid is erupting. When this picture was made it could be seen in the mouth.

Fig. 141.

Fig. 142.

Fig. 141. Age of patient, twenty-one. A retained temporary upper cuspid. The arrow points to a dark line following along the side of the impacted cuspid. The impacted tooth itself cannot be seen.

Fig. 142. The same as Fig 141, but taken at a different angle and showing the permanent cuspid.

To verify or disprove my deductions another radiograph was made (Fig. 142), which shows the impacted cuspid clearly.

The question arises naturally, what operative procedure should be resorted to in such cases as the one just described? Had the patient been younger, or had the root of the temporary cuspid been resorbed,

or had the pressure of the impacted tooth been causing resorption of the permanent lateral root, or central root, or had the patient been suffering from neuralgia, periodic headaches, or any nervous disorder—had any of these conditions existed the temporary tooth should have been extracted immediately, space made in the arch for the permanent tooth and such orthodontic assistance given as might prove necessary to cause it (the permanent cuspid) to erupt into its proper place. As none of these conditions did exist, and as the patient expressed a definite disinclination to have anything done unless absolutely and imperatively neces-

Fig. 143.

Fig. 143. The roots of a lower, first, permanent molar not quite fully formed. Age of patient, eight years and four months. Only the crowns of the second bicuspid and second molar are formed.

sary, the case was dismissed with the understanding that the condition should be kept under rigid observation. The man may go through life without trouble, or inside of a year he may be suffering almost any nervous disorder from simple neuralgia to insanity*; or he may lose the temporary cuspid as a result of the resorption of its roots, or he may even lose the lateral or central as a result of absorption of their roots, or suppuration may occur.

3. To Learn if the Roots of Children's Teeth are Fully Formed.

Case—patient, eight years and four months old.

Fig. 143. A large cavity in a lower first, permanent molar. To remove absolutely all of the decalcified dentin meant extensive exposure of the pulp, and, therefore, pulp devitalization, extirpation and canal filling. But should we practice pulp devitalization in such a case? If the roots of the tooth are fully formed, yes; if the roots are not fully formed, no. A radiograph (Fig. 143) was made and shows that the roots of the tooth are not quite fully formed. Accordingly exposure of the pulp was avoided, the unremoved, decalcified

*Dr. Upson.

dentin painted with silver nitrate, a paste of zinc oxide and oil of cloves placed in the bottom of the cavity and the tooth filled with cement, the object of this treatment being to conserve the pulp in the tooth at least until the roots are fully formed.

Often a child meets with some accident which breaks off the angle of a central or lateral incisor. To restore the angle sometimes necessitates the removal of the pulp and the placing of a post in the canal. The question should always be raised, "is the tooth's root fully formed?" If it is, we may proceed with the devitalization, but if not, some tem-

Fig. 144.

Fig 144. Post-collar crown on a temporary cuspid root. The permanent cuspid erupted down to the post of the crown. The dark shadows in the region of the temporary cuspid crown are numbers used to mark the negative. (Radiograph by Kells, of New Orleans.)

porary restoration should be made and the pulp conserved until it has fulfilled its function of root development. Whether the root is fully formed or not can be determined only by the use of the X-rays.

In a child's mouth we occasionally find an anterior tooth so badly decayed that crowning is indicated. Again we are confronted with the question, "is the root fully formed?" And whether we should devitalize and crown the tooth or keep it patched with cement for a year or so depends entirely upon the answer which the radiograph may make to this question.

4. To Determine Whether a Tooth be One of the Primary or Secondary Set.

What treatment we give a tooth depends very largely on whether it be of the permanent or deciduous set. If a man knows his dental anatomy as well as he should it is usually easy for him to determine whether a tooth be a primary or secondary one. Occasionally, however, we find a tooth (usually an upper lateral incisor) that looks as much like a member of one set as the other and the radiograph must be used to arrive at a definite conclusion. To mistake a permanent tooth for a deciduous one and extract it (Fig. 130) is an inexcusable and disastrous blunder.

Sometimes a tooth is so badly decayed (the crown may be entirely destroyed) that it is impossible to determine by simple ocular observation whether it be a temporary or a permanent one. The radiograph can be used to great advantage in such cases. If the carious tooth be one of the temporary set, with the succedaneous tooth ready to take its place, it should be extracted. If the carious tooth be a permanent one, the radiograph shows the size and condition of its roots.

Case—a post-collar cuspid crown became loose. A radiograph (Fig. 144) was made and shows that the crown is placed on a temporary cuspid root. Part of the root of the temporary tooth is resorbed and the permanent cuspid has erupted down to the end of the post of the crown. The very dark shadows in the region of the temporary cuspid crown are caused by lead numbers placed against the film packet to mark the negative.

Fig. 144.

Dental Educational Prognathism.

By G. S. JUNKERMAN, A.M., M.D., D.D.S., Cincinnati, Ohio.
Dean of the Cincinnati College of Dental Surgery.

The road of dental progress to-day is clogged with three distinct organized bodies: the profession at large, the dental college body and the examining boards. These three bodies are not only elbowing each other, but much friction exists within these bodies themselves. Such a condition is logically to be expected where the path is so narrow and the same goal is desired by each. These three bodies are all moved by an honesty of purpose, but when we realize that selfish motives mould personal opinions in individuals in the world at large, we no longer wonder that these same prejudices are carried into organizations working for the betterment of business or professional life. Most individuals are inherently just, since intelligence teaches that in order to expect justice for ourselves, we must make an attempt to extend it to others. I do not wish to harshly criticize the above three bodies mentioned, but rather to praise the honest motive with which each is striving, and to cast the mantle of charity over the frictional differences, hoping that time will show the errors and correct them so that the whole machine of dental progress may move happily forward.

There seems to be a unanimity of opinion, that a standard of efficiency should be complied with before the dentist begins practice. This seems fair, both in the eyes of the profession and of the laity, and

I believe that the profession as a whole can get together on this standard. The dental colleges are anxious to make this true dental efficiency very thorough. It is upon the other subjects which tend to broaden the man rather than the dentist that the difference in opinions arises. Preliminary education and the intensification of studies in the dental curriculum, which, while having some bearing on dentistry itself, fulfills to the minds of many dental teachers all that is necessary when taken in moderate doses, are two items upon which the examining boards differ among themselves. High educational requirements, while useful in any walk of life, have not been found a true criterion by which to judge a student as being qualified to make a success in dental surgery.

Useless and Useful Education.

The word over-education has of late been very frequently found in magazine literature, and, when properly defined, means useless education, of which there is a great deal. Useful education to a high degree should be demanded before any student enters upon the study of a business profession, and the high school diploma is not an adequate measure of it. The same principle of usefulness applies to subjects of the professional curriculum. The dental curriculum of our colleges is not over-crowded as to the number of subjects taught, but there has been a split between the universities and purely dental schools on the degree of intensity with which each subject should be studied. The result is that the dental graduates from our universities are less qualified for the real operations of dentistry than are those who come from colleges where more real dentistry is taught; and that counts most to the laity who are the sufferers or the beneficiaries, as the case may be. The public never asks "what was he?" but, "what is he?" and the educated ignoramus is the professional man who knows everything and can do nothing that would make him an exponent of his profession to the people who are in need of such services. To concentrate on the purely dental subjects and use other subjects as embellishments will make the most useful practitioner of dentistry, and that is the real aim of dental education. The preliminary requirements should be based along the same line, and long before a student enters a dental college he should be put upon a curriculum of study of useful things which can be weaved into and made part of the cloth, from which he will cut out his professional career.

The Qualification of a Teacher of Dentistry.

It is a principle of life that the degree of struggle and energy exerted in acquiring anything fixes the value of it. Cheap education makes cheap graduates and that is mainly why we find so many college graduates in menial positions. Restaurant waiters

and unimportant clerks are too frequently handicapped with well signed diplomas. Universities have set up the claim of possessing large endowments which would give them superior means of educating their students. No one doubts the power of money and that good salaries are an incentive to good teachers, giving such teachers the opportunity of devoting all their time to teaching. While such principles apply to the academic departments of universities, there is another side to the question, when applied to the business professions, especially dentistry. Dentists who devote all of their time to teaching must almost necessarily grow rusty in practice and cannot teach the real practice of dentistry as could those who are daily engaged in practice. The sole claim raised by universities is that large amounts of money give them superior advantages in better education, and that thereby the students' fees may be so cheapened as to admit anybody that has already secured the necessary preliminary educational requirements. Experience teaches that students who have to struggle to pay for their education usually make the best success in life, and the vagabonds are those who have had cheap education, and that thrown at them.

The Split in the Faculties Association.

In the Faculties Association the split between the purely dental schools and the universities that teach dentistry was begun and ended solely because the purely dental schools desired to charge an increased fee, commensurate with the right cost of dental education. The universities first pleaded that the charging of increased fees was in violation of their charters. All university charters are plastic enough in other things to be moulded to the needs of educational progress, and the fee question was only the catspaw used to scratch the line of demarkation, bringing into the limelight a class distinction based on gold instead of brain.

A school where trustees and faculty are dentists and wherein only dentistry is taught, is a good example of concentration, which is the real watchword of this age, where to do one thing and do it well is the secret of accomplishment. When dental practitioners sacrifice their time to dental college teaching because they love it, with small hope of adequate monetary reward, it is an inspiration to the students who attend such a school; while teachers who retire from practice to teach for attractive emoluments, often lack spirit and cannot so well keep abreast of the current improvements of their profession.

While it may be proper to cheapen preliminary and preparatory education, the business professions should have a price, and I believe where standards are proper, it will be found that the schools that charge the highest fees for what they give will have the highest skilled gradu-

ates. When there is a price to be paid it is natural in preparing for a calling in life that the future successful man will go where he can get the most for his money. Inversely, the man who has to pay a good price will struggle to get what he is paying for, and likewise will appreciate it more when he gets it.

I am not much in sympathy with the cloister proposition, where men shut themselves up from the world with the flattering unction that they can thereby do better things for the world. It needs the friction of worldly contact to produce mental electrical illumination and it is the busy dental practitioner that makes the best teacher. It has been these men who have in the past made our dental schools, yet to condemn schools conducted by such men seems to be the mission of the university prater. If such men wish to conduct dental schools it will be time for condemnation when their graduates prove inferior to the university product, which has been the reverse condition up to the present. Broad dental education is desired at all times, but dentistry has its limits; more so than many other callings, and schools that reach that limit have fulfilled all requirements. Money after that becomes a drug and ceases to be a lubricator of professional educational machinery. Reasonable assets and more brains are needed to make good dental schools. It should become the rule rather than the exception for our dental boards to consider how much a dental student may acquire in a dental college curriculum, and to know also, no matter how many years a student is in college, that it requires the friction of practice to make a finished professional man. College men realize this fact and it is the aim of purely dental schools to crowd much useful knowledge into their students and leave the embellishments for future acquisition.

I wish rather to criticize than to condemn our educational bodies because I believe, as I said before, that all of them are honest in their intentions. We should, all of us, be more democratic and avoid class distinction, or we may suddenly awaken to the fact that the blanket of the "Anti-Trust Sherman Act" has been so stretched as to cover the business professions. Such a trend in affairs is not impossible. We will not say anything against the universities, if they behave themselves, but many of the small dental schools are doing equally as good work and their machinery is not clogged with buildings, equipments and a bulk of money beyond what they really need, yet they have quite sufficient to produce graduates that can stand at the head of the profession.

The Cause of Open-Bite Malocclusion.

By Van Broadus Dalton, D.D.S.

Professor of Orthodontia and Ceramics, Ohio College of Dental Surgery, Cincinnati, Ohio.

Read before the New Jersey State Dental Society, Asbury Park, N. J., July 21, 1911.

During the past five years many papers have been published on the subject of malocclusion of the teeth and their treatment, and while most of them are of unquestionable value, covering points of great importance in the field of orthodontia, the author feels, however, that due consideration has not always been given to the causes of malocclusion. The fact cannot be disputed, that the removal of the cause is of more importance than the correction of the malocclusion. A great number of papers have been published of late on the subject of preventive medicine, and there has been likewise a great move in the field of preventive dentistry, as is evidenced by the wonderful work of the prophylaxis advocates. That we may realize that it is a higher and nobler calling to prevent the irregularities of the teeth than to correct them is the goal to which the specialist in orthodontia should strive.

The great minds in orthodontia are coming more and more to the conclusion that heredity has very little to do with malocclusion. We have attributed anomalies to heredity, because we could not define the real causes. Just so, have habits of childhood, such as tongue-sucking, thumb-sucking, lip and cheek-biting, been given such prominence, as casual factors, simply because we have not found out the real causes.

The author predicts that in the very near future these theories which he believes are absurd will be discarded, and in summing up the etiological factors of malocclusion we will find but few, instead of such a great number as has heretofore been given.

The most probable causes may be divided as follows: early loss of the deciduous teeth, consequences of caries, prolonged retention of the deciduous teeth, extraction of the permanent teeth, especially the first molars, transposed teeth, abnormal frenum labium, supernumerary teeth, torsion, delayed eruption of the permanent teeth, absence of permanent tooth germs, imperfect fillings and crowns, and nasal and naso-pharyngeal obstructions, which result in the necessity of mouth breathing.

It is the author's belief, however, that the two greatest factors entering into the causes of malocclusion are, early loss and prolonged retention of the deciduous teeth, and lack of development resulting from obstruction in the nasal and naso-pharyngeal passages.

It is of the greatest importance that general practitioners should know the causes which produce irregularities of the teeth, for it is to them and to them only that the opportunities offer for prevention of malocclusion. It is not so important, nor even necessary, that they should understand how to correct any case of malocclusion that may present, but if they can prevent malocclusion, that is by far a nobler work than the correction of the malocclusion by the orthodontist.

The orthodontist comes only in contact with the malocclusion after it is present, but by his deep study in the co-related branches which is of vital necessity—he has pointed out the evil results of the causes being overlooked by the dentist; hence it is of the utmost importance that the general practitioner as well as the orthodontist should go more deeply into the causes which produce malocclusion, especially that class of cases so difficult to treat, and the one which gives the least gratifying results, even after treatment, namely, open-bite malocclusion, or infra-occlusion of the anterior teeth. This form of malocclusion may appear in any of the classes of irregularities, but is more frequently found in that great class of malocclusion known as Class I. It is characterized by a space between the upper and lower anterior teeth from cuspid to cuspid, in some cases involving the bicuspids and even the first molars.

Open-Bite Causes Tongue Sucking.

The cause of open-bite, or lack of occlusion of the anterior teeth, has been somewhat shrouded in mystery, heretofore. Various theories have been suggested, notable among which is that of tongue-sucking and mouth-breathing. Possibly tongue-sucking would have a tendency to force the incisors into their sockets, if constantly persisted in, provided the

tip of the tongue were held between the anterior teeth, but this force would need to be constant, acting both day and night. Such extreme habits are rare indeed.

The habit of holding the tongue between the incisors is caused by the existence of open-bite malocclusion itself, for wherever open-bite malocclusion is found, we note that the tongue is abnormally enlarged. This is accounted for by the fact that the tongue conforms to the alignment of the teeth, as is shown where teeth have been extracted, in which cases the tongue will be found slightly enlarged and filling in the space caused by the extraction of the teeth, and where the anterior teeth do not occlude, there is a natural tendency for the tongue to protrude. In all probability this enlargement of the tongue, or rather the enlargement of the tip of the tongue, explains the cause of lisping, so often found with this class of irregularities. Try holding your teeth slightly apart and see if there is not a tendency for the tongue to protrude. This is caused by nature's effort to close the opening. Thus holding the tip of the tongue between the anterior teeth instead of causing open-bite, is only the natural result of the open-bite malocclusion itself. Undoubtedly in most cases, this natural tendency of holding the tongue between the incisors would tend to make the deformity greater, and while it is not the primary cause, that does not preclude it from being an adjunct to an evil already begun.

Infra-Occlusion Causes Mouth Breathing.

Again, mouth-breathing has been given by some as the cause of infra-occlusion; but mouth-breathing, instead of causing, is really induced by this deformity. The lips being held further apart than normal is a factor that superinduces mouth-breathing itself.

Dr. Calvin S. Case's theory that "long continued mouth-breathing is the principal, if not the only cause of the typical form of open-bite malocclusion" is erroneous, because mouth-breathing is the direct result of open-bite malocclusion. It being an effort to close the undeveloped lips, and the oral cavity being thus open, this constantly open mouth is a factor which induces mouth-breathing. This accounts for the fact that nearly all patients suffering from open-bite malocclusion are mouth-breathers, while not all mouth-breathers have infra-occlusion. Where there is obstruction in the nasal passages, such as hypertrophy, adenoids, etc., mouth-breathing becomes a necessity and should therefore never be classed as a habit.

Again Dr. Case says, "that in pronounced cases where two or more teeth on each side occlude, the back ones will at times seem to have been driven into their sockets through the force of mastication, or prevented

from growing to their full height, so that the tuberosities come in close proximity to the angles of the rami when the jaws are closed." This is accounted for by the fact that the process grows down with the extruded molars, giving them the appearance, so far as length of cusp is concerned, of normally erupted teeth.

No tooth was ever driven into its socket through the force of mastication. If that were true, we would have fewer cases of open-bite malocclusion to treat, since the occlusion is sustained in pronounced cases only by the four molars; and if they could be driven into their sockets through the force of mastication, that in itself would correct the malrelation of the jaws.

If mouth-breathing is the cause of this class of irregularities, why do we not find it in children, from the ages of five to eight years? The author means the pronounced form of the typical open-bite malocclusion, for he has never heard, as yet, nor seen a case being recorded of infra-occlusion under eight years of age; yet children often breathe through the mouth, more especially at this age.

In all cases of pronounced open-bite occlusion, the lips are held further apart than normal, muscular influence is thereby impaired, and if nothing is done to relieve the deformity, the anterior teeth, being deprived of the muscular influence of the lips, are forced outward, development of the process is hindered, and we have the consequent infra-occlusion associated with protruding upper incisors. This forcing outward of the upper incisors is caused by the muscular influence of the tongue, which does not meet the normal restraining muscular influence of the lips, the patient breathing through the mouth, especially on retiring at night.

Supra-Occlusion of the Molars.

In all cases of the typical form of open-bite malocclusion there is supra-occlusion of the molars. This supra-occlusion of the molars should receive more attention than is generally conceded, since it is really *the cause of the infra-occlusion.*

This supra-occlusion of the molars is directly traceable to prolonged retention of the deciduous second molars.

The author has models which clearly show this, as will be seen from the accompanying illustrations, which speak for themselves.

The germs of the first permanent molars are the first permanent tooth germs formed, and they are as a rule the first permanent teeth to erupt, and are the largest and strongest of the permanent teeth. These first permanent molars are the teeth which determine the length of bite; that is the length of over-bite of the upper anterior teeth, erupting as they do just back of the second temporary molars at the age of six

years, and becoming firmly locked before the loss of the deciduous molars.

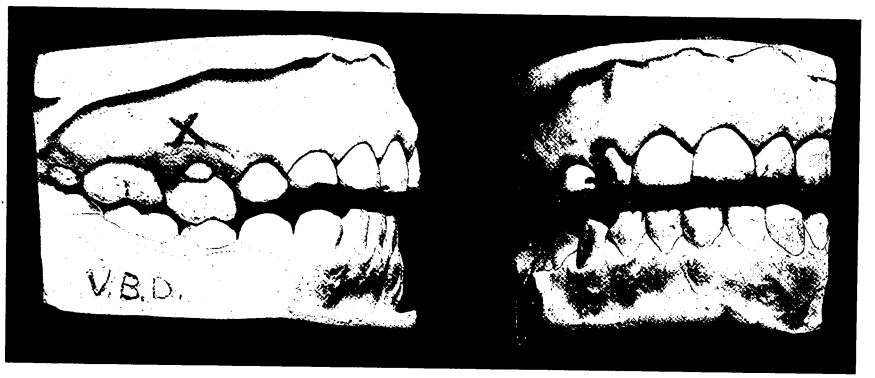
These teeth—the first permanent molars—serve as props to hold the jaws apart while the temporary molars are being shed, and their permanent successors—the bicuspids—are erupted into place and interlock.

Fig. 1.

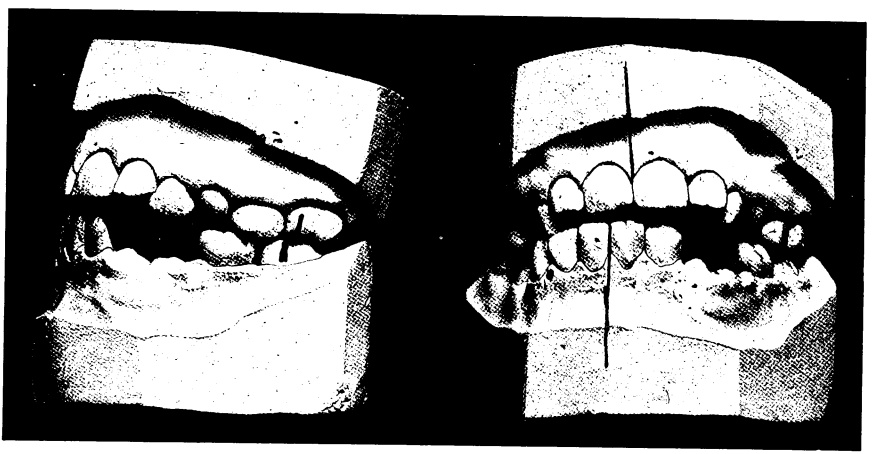
Cause of Anterior Infra-Occlusion.

If in the course of eruption of the second bicuspids, the temporary molars are forced slightly from their sockets, the bite is lengthened and the anterior teeth do not occlude, the incisors being propped apart by the extruded second temporary molars. In some cases these temporary molars become sore, mastication is thereby impaired, and the child refrains as much as possible from using the teeth. The evil is thus enhanced, for the first permanent molars being held further apart than normal, erupt on until they occlude and become firmly locked; and finally the temporary molars are lost, or are in some instances pushed out by the erupting bicuspids. The bicuspids being held further apart than normal by the already locked molars, erupt on until they occlude. The anterior teeth being held still further apart never erupt sufficiently to occlude. Thus we have open-bite malocclusion.

This class of malocclusion interferes greatly with mastication, and also with the speech of the patient; causing the characteristic lisping. Infra-occlusion is by far the most difficult class of malocclusion to treat, so that the prevention of the primary cause, *too long retention of the*



Figs. 2 and 3.



Figs. 4 and 5.

deciduous second molars is the only correct treatment. Great caution should be used, however, as too early extraction of these teeth would cause another form of malocclusion, namely, an excessive over-bite of the upper anterior teeth, together with other associated forms of irregularity.

Too early loss of the deciduous molars would allow the jaws to come too close together, thereby preventing the permanent molars from erupting as far as normal, causing permanent excessive over-bite of the upper incisors, as well as preventing normal development of the jaws, causing a crowded condition of the bicuspids when they erupt, or preventing their normal eruption.

In no case should the second temporary molars be extracted before the eruption and interlocking of the first permanent molars.

Good judgment should be used in preserving the temporary teeth, for in some cases where decay exists—and even where decay does not

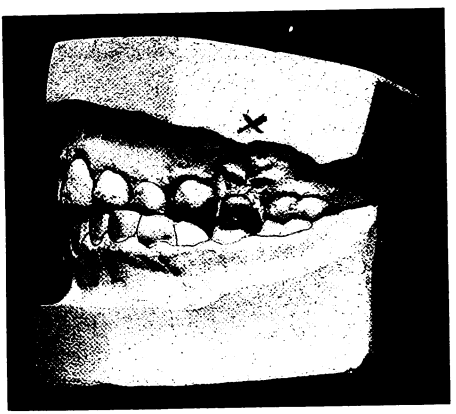


Fig. 6.

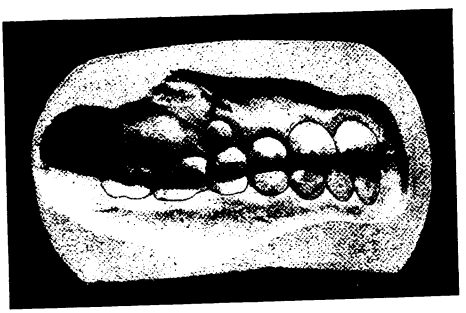


Fig. 7.

exist—the normal absorption and loosening of the deciduous molars does not take place. This was convincingly proven to the author in a case of expansion of the lower incisors, where the right lower second deciduous molar was used for one of the anchor teeth, it being large, firm, and free from decay. When ready to remove the regulating appliance, the anchor tooth on the right side came away with the appliance, having practically no roots at all. It was held in place only by the gum attachment. In less than a week the cusp of the second bicuspid was erupted through the gums. This tooth was actually interfering with the eruption of its permanent successor and, had it not been used as an anchor tooth in the treatment of the case, would no doubt have remained for a much longer time; and yet there was no sign of any interference with the eruption of the second bicuspid.

The law laid down by Dr. Angle covers this point very thoroughly. "Whenever a temporary tooth is found interfering with the eruption of its permanent successor, it should be removed regardless of the time."

The thickened process over the roots of the temporary teeth usually indicates the eruptive force of the permanent teeth, and is a *warning for extraction*. If greater care were given the temporary teeth, there would be fewer cases of malocclusion. Treatment of the temporary teeth is very much neglected, and injudicious extraction is too often practiced. After a child is five years of age, and in some cases even younger, the teeth should receive careful attention by dentists, to guard against any premature loss of the deciduous teeth, as well as to prevent their too long retention.

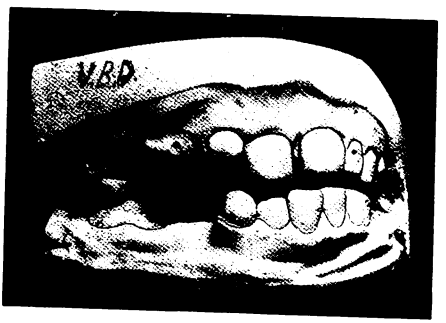


Fig. 8.

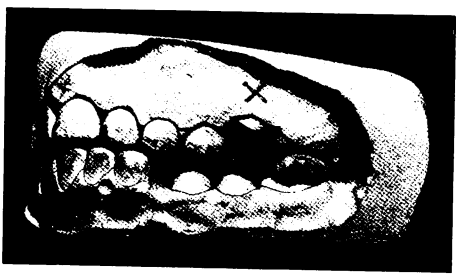


Fig. 9.

Treatment. There are some cases of this class of malocclusions, where the infra-occlusion of the incisors is very slight, that will yield to the treatment of extruding the anterior teeth, provided the tension on the lips is not overtaxed and proper nasal breathing is established.

In patients who have advanced in years, treatment is not successful, yet some relief is afforded by grinding the occlusal surfaces of the supra-occluded molars. The practice of extruding the anterior teeth is not a very satisfactory one, the results not being permanent; for development never takes place normally. *In fact, to lengthen the bite in this manner is abnormal.*

Of course there are complicated cases of open-bite malocclusion, where lateral expansion, etc., would be indicated, but the author has intended to discuss only the typical form of open-bite malocclusion.

In Figure 1, taken from Dr. Case's *Dental Orthopedia*, the receding chin effect is caused by bringing up of the muscles of the lower lip further than is normal. Notice that extruding the anterior teeth, in the treatment of this case of open-bite malocclusion, will not gain facial harmony.

Figure 2 illustrates the beginning of a case of open-bite malocclusion in a girl thirteen years of age. Notice that the extruded upper

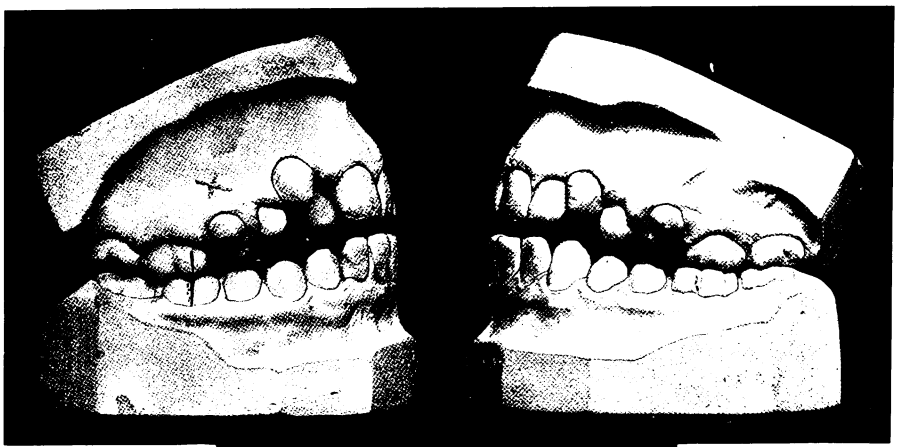


Fig. 10.

Fig. 11.

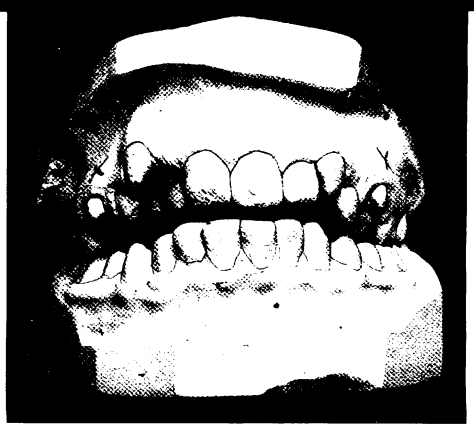


Fig. 12.

second temporary molar is the sole cause of the infra-occlusion of the anterior teeth. The upper second bicuspid, instead of being deflected from its course, is erupting in a normal line, pushing the deciduous molar from its socket. The same condition prevailed on the opposite side, but unfortunately the temporary molar was extracted before the author's attention was called to the case.

This is the first case in which the author discovered that too long retention of the second deciduous molars is the cause of open-bite malocclusion. The wax bite of this case was secured over four years ago, and since then the number of cases that the author has seen has led him to believe that it is a fact that has been heretofore overlooked.

Figure 3 shows front view of the case illustrated in Fig. 2. Notice how great a space is produced in the incisor region by only slight

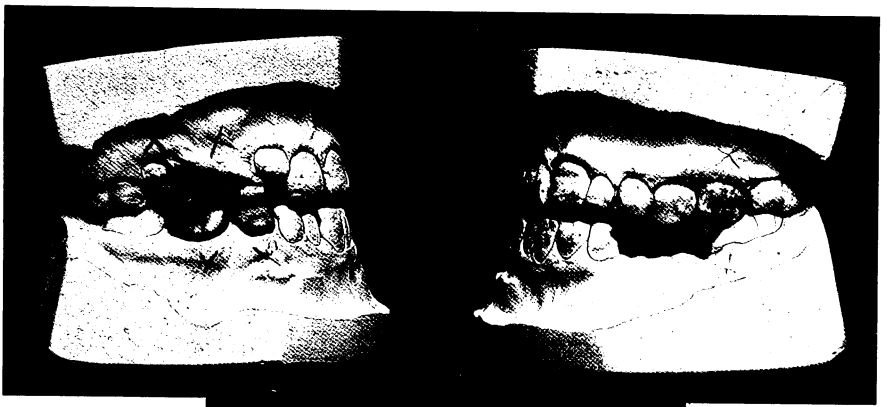


Fig. 13.

Fig. 14.

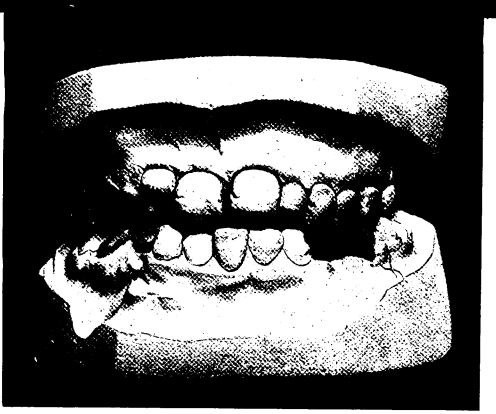


Fig. 15.

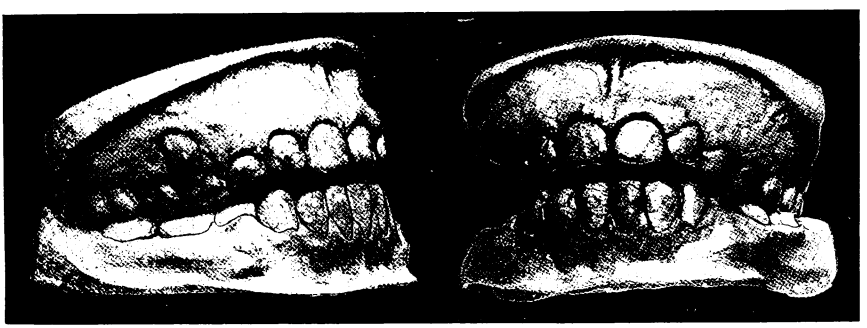
supra-occlusion of the first permanent molars. The infra-occlusion was slightly reduced after extraction of the temporary molars and still further reduced by grinding the first permanent molars.

Figure 4 illustrates another case of too long retention of the temporary molars. The cusps of the lower cuspid and first bicuspid are just showing. The first temporary molar was lost only the day before the impression was taken.

Figure 5 shows the anterior view of the case illustrated in Fig. 4. Note the shifting of the median line in the upper arch toward the affected side.

Figure 6 illustrates a case showing the second upper temporary molar in the model. The tooth came away with the plaster impression. This patient has an almost end-to-end bite.

Fig. 16.



Figs. 17 and 18.

Fig. 19.

Figure 7 illustrates the beginning of a case of open-bite malocclusion in a patient only eight years of age.

Figures 8 and 9 illustrate the models of two cases secured immediately after extraction of the temporary molars which had been retained too long; causing supra-occlusion of the first permanent molars with consequent infra-occlusion of the incisors.

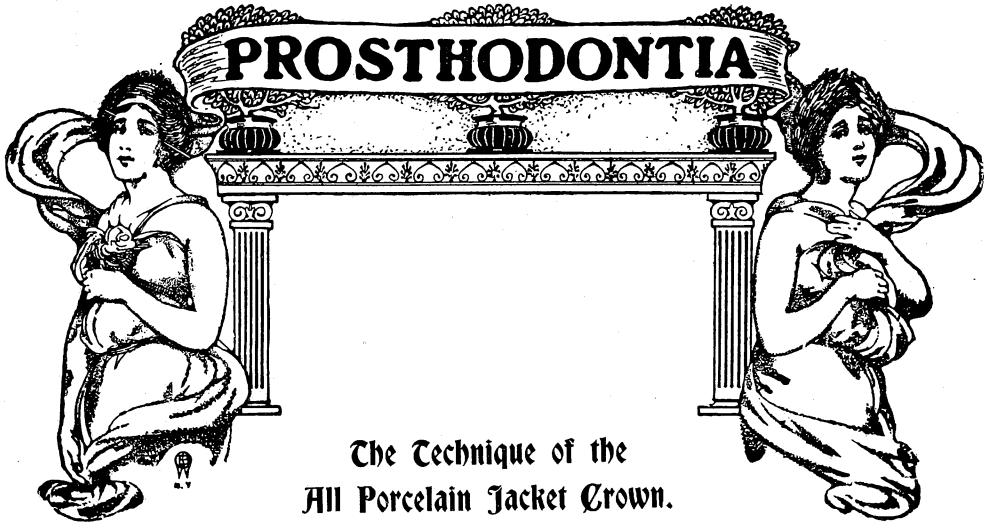
Figures 10, 11 and 12 illustrate a case where the lower arch and teeth are beautifully developed while great irregularity and inharmony prevails in the upper arch, caused primarily at least by too long retention of the upper second deciduous molars. The temporary teeth show dark in the illustration because they are the natural teeth which came away with the impression, plaster being used as impression material.

Figures 13, 14 and 15 show another case where the retention of the eight temporary molars was causing complicated trouble. Unfortunately the illustrations do not give a very good idea of the conditions which existed in this case. Immediately after the impressions were taken the eight temporary molars were extracted and placed in the impression, because it was the author's intention to get models which represented the original condition as nearly as possible.

Figure 16 illustrates a peculiar case. The lower first and second bicuspids are erupting mesial and distal to the lower second temporary molar. The reason for this is that the lower first permanent molar had been extracted. This temporary molar was extracted because it was producing infra-occlusion.

Figures 17 and 18 illustrate a case where the upper temporary molars on the right side were causing open-bite malocclusion. This model was found in the College Collection and bears the date of 1884, clearing showing that the same conditions existed years ago.

Figure 19 illustrates a typical case of open-bite malocclusion which was doubtless caused by too long retention of the deciduous molars, for the patient is not a mouth breather, nor does she remember ever having been addicted to any of the so-called "habits" of childhood, although she does remember having temporary teeth extracted only three years ago. The author's collection contains other models which might be illustrated, but further proof seems unnecessary.



The Technique of the All Porcelain Jacket Crown.

By Marcus Straussberg, D.D.S., Newark, N. J.

Read before the Central Dental Association of Northern New Jersey, October, 1911.

It is my desire to express the sincerest gratification for the honor bestowed upon me by the Essay Committee of the Central Dental Association in asking me to prepare a paper for this evening. It is very seldom indeed that a member of a dental society has the privilege or opportunity to read an essay before his own organization. Why such a custom should prevail, I do not know, except for the old adage that "A prophet is not without honor, save in his own country." It is the writer's opinion that every dental society ought, and should, set aside a part of its time for papers to be written and read by its own members, those who have the desire and ambition to devote their time and abilities for such work.

Before entering into a description of the porcelain jacket crown advocated to-night, I wish to review as briefly as possible two other methods in vogue at present, so that we can readily see the advantages derived by this departure.

Previous Methods of Making Jacket Crowns.

One modus operandi consists of making a hood of platinum, covering and fitting the tooth properly prepared; or, if the bite is close, a piece of iridio-platinum is soldered to the grinding surface extending to the incisal edge. A tooth of the proper shade

is then ground to a thin veneer, thus supplying the labial part of the crown, and this veneer is then attached with porcelain to the platinum hood, the platinum remaining as a part of the crown.

This method has the following disadvantages:

First: There is no molecular union between the platinum and the porcelain; the stress of mastication will readily break the mechanical union existing.

Second: The crown, having a platinum hood and only a thin veneer of porcelain, a bluish tint is always present.

Third: No matter how thin the platinum and the feather edge of the porcelain may be, it will produce some irritation when forced under the free margins of the gum.

The second method is known as the Spaulding Jacket Crown: This crown has a veneer made from a rubber tooth, instead of being baked in one piece, and its shortcomings will be referred to later. The crown I desire to show you now is a modification of the Spaulding Crown, and is made as follows:

New Method for Porcelain Jacket Crown.

Suppose we have a tooth where a jacket crown is decided upon, the first step would be to take a carborundum separating disc and reduce the approximal surfaces until the gum line is reached, thus forming a shoulder; then with small stones the labial and lingual surfaces are trimmed, so as to form a continuous shoulder at the gingiva.

If operating on a living tooth, and it should become sensitive, we can direct a spray of ethyl chloride for a few seconds, thus anesthetizing the tooth. Then with small but sharp inverted cones or wheel burs the shoulder is completed, but should always be situated under the free margin of the gum. Next smooth all ridges made by the stones with sandpaper discs, and when completed the tooth should be lightly smaller at the incisal edge than at the neck.

Next take a piece of platinoid or German silver, and bend it to form a cone wide enough to cover the tooth to be crowned, and half of each adjacent tooth. Place a piece of soft modeling compound into this impression tray or cone, force home, and direct a spray of cold water and remove. Either cement or amalgam may be used as a die. When hard, separate and invest in the lower part or cup of a swager set in modeling compound; a piece of platinum foil 1/1000 fine, large enough to cover the tooth, is burnished over the model of the stump and swedged in the usual manner. Remove the matrix from the die and trim the surplus platinum, leaving a margin of about 1/64th of an inch at the shoulder. The matrix

is now placed on the tooth in the mouth and again burnished, thus correcting any imperfection caused by the impression and model.

We are now ready for the porcelain, which should be applied in a uniform layer all over the matrix. After the moisture is thoroughly absorbed, I take a fine spatula and make an incision through the unbaked porcelain, around the entire tooth, exposing the platinum matrix, at about 1/32 of an inch from the shoulder. This will cause the porcelain to hug the shoulder closely instead of drawing away from it during fusing. Bake to a biscuit. Return to the mouth for reburnishing and to guide the operator as to its size and contour. Enough porcelain is then added to represent the tooth as completed, and biscuited for a second time. Try in the mouth again. Very little porcelain will need to be added to finish, on account of the shrinkage which has taken place in the previous firing of the crown. Carve, and fuse to a gloss corresponding to the smoothness of the enamel in the mouth.

While on the subject of carving it may be of interest to state that porcelain can be carved at about 300 degrees below its fusing point, and while there is no danger whatever from removing the crown in a biscuited state when hot, it is of the greatest importance to leave the completed piece in the furnace until cold enough to be handled by the fingers. The crown is again tried in the mouth. Slight changes can be made even at this stage, but with care and a little experience we will find no adjustment necessary.

The platinum is removed with pliers in the same manner as from an inlay, the margin first, care being taken not to chip the margins by slipping. The interior of the crown is then etched with hydrofluoric acid, the acid neutralized, washed and dried with alcohol, and the crown cemented in the usual manner.

Producing Desired Color.

I suppose the greatest drawback about porcelain is the color problem, which is really not half as difficult as is generally supposed. Of course, some will never know how to apply colors, because they do not possess the necessary temperament—color sensitiveness, as artists call it. The majority of dentists have an esthetic sense, but do not devote enough time to this class of work to obtain gratifying results.

Let us take for granted that a jacket crown is to be made, and the operator is not certain what colors to use, I would suggest the following method: Take the shade guide and match the shade as we would for any other crown. Examine the shade selected, mark down on a diagram the colors you see, and how they are placed. Now take the guide from the porcelain to be used, match as closely as possible, and compare with the

diagram made. Make a few samples, which can be formed on blotting paper and baked in a few minutes. If none of the samples is quite right, correct and make a few more bakes until the proper shade is obtained. Then, and then only, should the practical piece be made, and there will be no guess work. With a little experience we can soon master this difficulty.

It may be of interest to state that grays sadden the color, while a blue added to that part of the porcelain which represents the incisal third will add translucency; and a little green added to the blue will still more increase its luminous quantity. The greater part of the tooth consists of the various hues of yellow, while the brown and yellowish-brown are the colors needed for the neck.

The method of applying porcelain in layers has proven very successful in the hands of the essayist, still it may become necessary at times to mix two or more colors in order to obtain the best results. But that should not be attempted by the beginner.

Advantages with the New Method.

A crown thus constructed has the advantage over the Spaulding crown; that one is capable of completing the entire porcelain part of several crowns before one veneer could be ground from a rubber tooth suitable for this particular work. And when a tooth is reduced to such thinness, naturally the entire yellow, or body, is removed, and it becomes necessary to substitute this body with a yellow cement, which is an opaque body and cannot represent the translucency of the yellow porcelain. And last, but not least, we must observe, that in order to obtain a good union between a facing and added porcelain, we must use a body with a fusing point as near as possible to that of the facing. And this facing being previously fused to its proper degree, a subsequent baking will weaken it through overfusing. Besides, a union at its best is not as strong as a crown fused to a gloss at once in a single mass.

The usefulness and advantage of a jacket crown is that a more artistic substitute can be made in this than in any other way. By this method we can obtain a continuity between root and crown, reducing the irritation at the gingiva to a minimum. No matter how perfectly a band is adapted to the root, its presence is a source of irritation.

Appropriate Places for Jacket Crowns.

These crowns are useful on live teeth, under the age of twenty, where the enamel is imperfect, and on small abnormal laterals. The jacket crown is essential for the four lower incisors, owing to the fact that if these teeth are devitalized, the flattened roots do not allow a post of the necessary length and diameter to be inserted;

whereas a devitalized lower incisor, having a pin cemented from its incisal edge into the pulp chamber to give additional strength, and a jacket crown made in the manner described, will be as useful a substitute as can be made.

There are numerous other places where a jacket crown can be used to advantage, but that must be left to the judgment of the individual operator. In fact, those patients who receive the proper advice and work in their proper place, are the ones who are most benefited, and because of the excellent judgment and able skill of the majority of our profession in this country, the world at large proclaims the superiority of the American dentist.

Discussion of Dr. Straussberg's Paper.

Dr. H. S. Sutphen. I feel it too much honor to be called on to open the discussion of this most admirable paper. We should be justly proud to have one of our own members present a paper which exhibits such an intimate knowledge of porcelain technic, on a phase of that subject which has not been given the attention which it merits.

The crown, as described to-night, is a great advance over the Spaulding jacket crown. It is simpler in construction, and stronger as well. The porcelain facing in the Spaulding crown is very liable to fracture, besides in many cases presenting serious difficulties in its proper grinding, not to mention the amount of time necessary to correctly and accurately do it. The grinding of the shoulder on the tooth, thus preventing future irritation, is a valuable feature.

I can only discuss the paper on its merits and originality—and not from experience in the work.

I constructed several years ago a jacket crown on a malformed superior lateral, by shaping the tooth a very little, making a platinum hood for the tooth—grinding a facing and building up with porcelain to the desired contour. The porcelain, however, was brought to a feather edge around the neck of the tooth. I saw this lateral last summer before I went away, and fortunately there was no irritation around the gum margin, and the tooth was doing good service. The pulp was alive in this case.

We see frequent need of a jacket crown, and I do not see why, with this clear and concise presentation of the subject by the essayist, we cannot more frequently use it. I wish to commend the essayist for the thought he has displayed in his description of the method. Every

word was well chosen to bring out his ideas in the simplest language, which is the acme of description.

I quite agree with the essayist in his opening remarks—that "a prophet is not without honor except in his own country"—and I add, that our society is to be congratulated on having one of our own number present a paper of such merit. I, personally, feel deeply indebted to the essayist for this contribution to porcelain technic and feel that I have been greatly benefited thereby.

Dr. W. H. Pruden. I do not do enough porcelain work to intelligently discuss Dr. Straussberg's paper, but I do enough to appreciate and admire the beautiful specimens that the Doctor is passing around. It seems to me that in only a comparatively few cases can such a porcelain jacket crown be adapted, It also seems to me that it has not sufficient strength, for when the stump is ground down small enough to admit a jacket crown, the stump, by reason of the pulp canal which it contains, is not a very strong foundation for any crown. It occurs to me that a metal post would be stronger.

It certainly must require considerable time to make such a crown, and I, like many of you, would find it difficult to get the necessary time, even if I had the necessary skill.

Dr. Edward C. Taylor. The jacket crown, as described by Dr. Straussberg, has a very important place in the work of any dentist who is trying to do artistic work.

There seems to be no sort of a crown having a gold backing that does not cast a dark shadow when the patient stands in a brightly lighted room. A Richmond crown sometimes looks, in such a light, as though the tooth were absent. In like manner the other makes of jacket crowns where the platinum cone is left in the crown, as in the Capon crown, show dark.

The Logan crown looks very well in such a light, but I have not had the success with the Logans in point of general serviceability that I need, and have therefore discontinued their use.

At present I am using the Davis crown, fitted to the root by a cast gold base, using an iridio-platinum pin. For a time, I used the composition pin for this work, but found that after the crowns had been in place for a year, there appeared a bad darkening of the root that would show through the thin layer of gum tissue on the labial side, thus causing a very objectionable appearance. Some of these crowns I have been able to remove in order that I might cut the root off shorter and make a new adaptation to do away with the dark line, but in general I find this a very dangerous operation, owing to the liability of going through the side of the root in the attempt to remove the pin.

The jacket crown so ably described by Dr. Straussberg is one having a maximum of translucency, and which overcomes many of the objectionable features of other crowns, and he has made its construction so easy of comprehension that I shall feel greatly encouraged to make more frequent use of them.

Dr. Jos. S. Vinson. I was very much pleased to have the privilege of hearing Dr. Straussberg's paper on the "All Porcelain Jacket Crown." I can see where a crown of this character can be very useful. My only fear is as to whether it is strong enough to withstand a firm bite. I am not in a position to discuss this paper as a critic, as I have never made an all porcelain crown. I am pleased with the idea, which is a new one to me, and I shall take the liberty of calling on Dr. Straussberg for instructions.

Dr. C. F. Alfred Hane. I have listened with great interest to Dr. Straussberg's able paper, and he has presented the subject so lucidly that there is not much ground left for discussion technically. I would, however, ask him a question which I would like him to answer, when he closes the discussion.

In preparing a tooth for a porcelain jacket crown, I have found great difficulty in shaping the stump properly, without removing a great deal of tooth substance. We all know that when a tooth has been deprived of its enamel and is surrounded by cement to hold a crown on, it is only a question of time for the pulp to die. I would, therefore, ask Dr. Straussberg what his experience has been in leaving live pulps under porcelain jacket crowns, and whether he would not prefer devitalizing all teeth for such crowning.

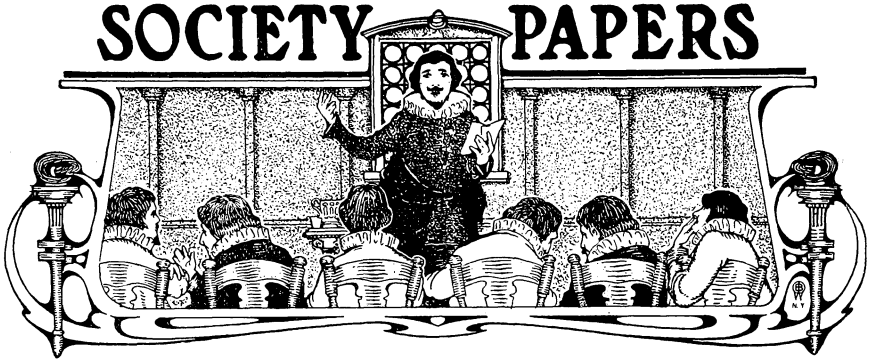
Dr. Marcus Straussberg. I highly appreciate the attention my paper has received and the kind words of those who discussed this paper.

Drs. Vinson and Pruden seem to be rather a little sceptical as to its strength. As stated in my paper, judgment must be exercised when and where work of this nature is indicated. Of course, in a very strong and deep bite, a crown as shown here this evening is contra-indicated, while in a normal occlusion a jacket crown is perfectly safe. The objection raised by Dr. Pruden that it must consume considerable time to construct this crown is incorrect. I can assure the Doctor that it takes less time than a Richmond crown, after the root is prepared.

In reference to Dr. Hane's question as to the necessity of devitalizing for the proper shaping of the root, I wish to refer the Doctor to that part of the paper stating that, "They are useful in live teeth under the age of twenty where the enamel is imperfect." The pulp being a formative organ it is my practice not to remove it under that age, unless compelled, either by accident or caries.

Again I wish to thank you for your cordial expressions.

SOCIETY PAPERS



Better Reorganization of State Dental Societies and Some Benefits to Both the Public and the Profession.

By Arthur D. Black, B.S., M.D., D.D.S.

Read before the New Jersey State Dental Society, July, 1911.

It is in no spirit of criticism of the work, progress and accomplishments of the New Jersey Society that I have come to present for your consideration some suggestions tending toward greater effectiveness, broader plans and better dental service to the people of your State as the result of your future efforts as an organization. I appreciate the fact that this society has for many years ranked as one of the really progressive organizations of the country, and it is for that reason that I expect you to see the possibilities in the plans which I will present, and to seize upon them for your further advancement.

Duty of Professional Men.

A State dental society, any State organization of professional men, has certain obligations and responsibilities which are not incumbent on other State organizations of men of like vocations. A State organization of grocers, for example, has practically no object other than the consideration of those questions which may bring about greater profits to the members, and the people of the State recognize this as a legitimate and proper organization so long as it does not go so far as to become a "trust." The principal function of a State organization of professional men should be the improvement in the service rendered to the people of the State by the men of that profession. A dentist or a physician tells his patients that he will be away for a few days to attend his State society meeting, and his patients and our people generally understand that these meetings are held for the purpose of

considering those questions which will result in better service to them. The public expect the men of a profession to constantly study those problems which will lessen suffering and prolong life; they also expect them to see to it that proper legislation is obtained and enforced, to protect them against persons not properly qualified. In short, they expect the men of each profession to be constantly watchful of their welfare, and in each State this duty should rest with the State organization of the men of each profession.

Two Types of State Societies.

This brings us to the question of the effectiveness of the work of our State dental societies. We have in this country at the present time two distinct types: the one composed of a small proportion of the dentists of the State,—ten to twenty-five per cent.,—who are generally supposed to be the more progressive, more scientifically inclined; the picked men of the State; the other a very large society composed of from fifty to seventy-five per cent. of the dentists of the State, comprising both the most progressive and the very slow going; the scientifically inclined and those who are looking only for the practical; the picked men and as many of the others as can be induced to come in; all associated together in a great and well systematized organization, so carefully directed that a large proportion actually take an active part in the work of the society each year.

The tendency in the first type is to confine the benefits of membership to a limited number of men, and in a measure to estrange the balance and larger proportion of the profession; the tendency of the latter is to bring about the greatest possible admixture and co-operation of all classes with the result of encouraging all to do something for the society and for self-advancement.

It is our belief that there is a place for both of these types of dental societies. We should have small societies, composed of men who wish to study the scientific problems which confront us; these societies should have a very limited membership. Such organizations should not be State dental societies. We believe that the State Dental Society, to carry out its proper function in the fullest possible way, should be a large organization; that it should have on its membership list every dentist in the State who can help with its work. The percentage of practitioners who are members of the State society is of much importance. In New Jersey, for example, you have about 350 members out of 1,000 or 1,100 dentists in the State; about thirty per cent. of the whole as members. I appreciate the fact that you have one of the best societies of its type in existence, and of much benefit to its members, yet its influence for the good of the people of New Jersey is somewhat in proportion to the percentage

of practitioners of the State who are members. It is of little service to the patients of the other seven hundred, who are not members and have little or no knowledge of the work of the society. There can not be proper progress of the profession as a whole as the result of the work of this organization. Your present State society can claim neither to truly represent the profession of the State, nor to properly look after the dental welfare of the people of your State. For no matter what you do as a society, no matter what legislation you secure, the real effect must be measured largely by your percentage of membership.

Take, for example, your new law empowering cities to vote funds for the establishment and maintenance of free dental clinics. This law does not of itself establish a free dental clinic; the clinics will only be established and the law become really effective as the result of proper and sufficient agitation by the dentists of the various communities, and I think there can be no argument of the point that a majority of the dentists of a community working together will more likely accomplish the desired result than will a few, particularly if, in the latter case, the other dentists of the city happen to be a little jealous of the few and belittle, hinder or oppose their efforts.

Selection of New Members.

In the reorganization and enlargement of a society, one of the most important matters to be considered is the character and ethical standing of new members, in order that the high standing of the organization may be upheld. In Illinois we have safeguarded the future of our society quite fully, as we believe, by placing the selection and election of members in the hands of the men of the particular section of the State in which the applicant lives. Under the new plan it is much more difficult for the unethical practitioner to get in than by the method previously in vogue in our State, by which applicants were voted upon by the society as a whole, or by a Board of Censors. In fact, there are practitioners in our State who were accepted without question as members of our State society a few years ago, but who were refused membership in the reorganized society. We, therefore, feel that we have not only made our society six times as large, but have done so under a plan by which we are more certain of the standing and quality of our members than we were before.

Accomplishments Under Illinois Plan.

I can not better illustrate our plan of reorganization, and the possibilities of it, than to recite something of what has been accomplished in Illinois in the past few years. I may add that other States have in many particulars been quite as successful as have we in Illinois. Most of you are so familiar with the plan itself that

I will only outline it very briefly. It might be called the "lodge" system of organization; there being a number of local or component societies, which represent "subordinate chapters," and these altogether constitute the State society or "supreme lodge." It has been the plan of the medical societies to organize a society in each county of a State, and all the members of all of the county societies constitute the membership of the State society. In our dental organization we have, in many cases, combined several counties in one local society. The most important feature of the plan is to have the State society composed of a number of component societies, each of which shall have jurisdiction over a certain territory; all members of each local society must be members of the State organization; the dues paid to the local society cover both the local and the State, so that one cannot be a member of one and not of the other. Each local society represents the State society in its territory; it passes on all applications for membership from men within its jurisdiction, and it may expel members. The territory of each component society is small enough, so that the practitioners are tolerably well known to each other, and the members of the local society are better qualified to pass on applicants from their section than a committee of the State society could be. The local societies in Illinois have made some mistakes in the election of members, but they have not hesitated to expel men who violated the code of ethics after becoming members.

The component society is the unit of strength in the organization plan. Each component society has for its members men who are practising in the same section of the State, under similar conditions, and the problems of both a professional and a business nature are more or less alike for all. These men are soon united by bonds of good fellowship, and quickly realize that by working together they can accomplish many things that were impossible before. They act as a unit for all things which will better the dental service in their respective sections. The public is not slow to realize the fact that the dentists, as true professional men, are working together for the good of the community, and dentistry stands higher in the public estimation.

The changes that have been brought about in some sections of Illinois during the past seven years are almost beyond belief. I quote the following from the address of President S. F. Duncan at our 1906 meeting: "It has resulted in great interest being aroused in localities where formerly there was no interest, and where every man's hand was against that of every other man. And in places where ethics was unknown, good fellowship now prevails, and our men are working hand in hand for the betterment of local conditions and for the advancement of the interests of the profession."

Growth in Membership.

In 1904 the Illinois State Society had 274 active members who paid their dues. As a result of our reorganization during that year 1,260 paid dues in 1905, 1,372 in 1906, and the number has increased each year since until we now have nearly 2,000 members. As previously mentioned, greater care than formerly has been exercised in the election of members, and the average ethical standing of our membership is better to-day than before reorganization. Our greatest problem was not, however, that of increasing our membership, nor of maintaining it, but of so directing the work of our enormous society that we would be able to make proper progress as a body of professional men, to make the work of our organization effective. How we have succeeded is best told by reciting results achieved.

Improved Dental Statutes.

We refer with considerable pride to the new legislation which we have secured. The first dental law of Illinois was enacted in 1880, after ten years of strenuous fighting. From that time until 1903 many attempts were made to revise the dental law of our State, but all met with failure. Since our reorganization in 1904, we have secured the passage of new dental legislation at every session of the legislature (except this year, when we did not wish anything), and in each instance, in 1905, 1907 and 1909, the enactments were in exact accord with our desires. Previous to reorganization our society had fought for twenty-five years to revise our law without success; after reorganization the law was revised three times in six years.

There could be no better example of the good organization, system, and unity of effort in our society than was shown on several occasions in connection with the passage of these acts. To cite one instance, our bill was apparently hopelessly pigeon-holed by a committee, and the efforts of our members at the State capitol were of no avail, when we determined to show the strong hand of the society and play a little politics. Letters were sent to every member of the society requesting each to write his senator and two representatives the single sentence: "I ask your support for the dental bill." Our Legislative Committee enclosed return postals by which each member who complied notified them that he had done so. These postals indicated that within forty-eight hours more than four thousand letters and telegrams were sent to the members of our legislature, and our bill passed without further trouble. Our bill in 1909 passed our senate by unanimous vote, and there were but two dissenting votes in the house. In connection with the passing of these laws our society has made a splendid impression on our legislators; they have expressed their appreciation of the fact that we have a fine organization,

and that our members must be a live and wide-awake lot of good fellows. Our bills have gone through so nicely that a great many other State organizations have noticed the fact, and it is now generally recognized in our State that the dental profession gets what it goes after.

Improved Dental Service.

It has been the policy of our society to gradually improve the dental service rendered by the entire profession of the State, rather than to confine the benefits of membership to a selected few. With this end in view a Post-graduate Study Course was inaugurated four years ago for the purpose of developing better and more systematic work by the members of the component societies. The committee in charge selected certain dental journals, the articles in which were indexed and classified. The lists of articles were so arranged that all articles on each subject were placed together. For each year a definite course is arranged and a list of questions and notations where answers may be found is published each month in a bulletin which is mailed to every member of the society. These reports offer to the members of component societies ample material for the preparation of programs for meetings. They give the individual member good lists of articles from which to obtain material for papers or discussions. The arrangement of questions and notations enables one to review an entire subject, or any particular phase of it as he may desire. The local society may divide a subject among a number of its members, assigning a question to each, and thus give each an important part in the program without requiring very much to be done by any one. The reports also offer splendid reading courses which may be pursued by individual members.

Dental Libraries.

Dental libraries have been established in about forty cities in Illinois in connection with the Post-graduate Study Course. These libraries consist of the journals selected by the Post-graduate Course Committee, and are usually placed in the public libraries or other places of convenient access. Two circulating libraries, of the same journals, have also been established.

The society has, in the establishment of this Post-graduate Study Course and the dental libraries, inaugurated a movement which, it is believed, will be the most far-reaching in its effect in advancing and disseminating dental knowledge and improving the service of anything yet undertaken by a dental organization. It presents to each member of the society the opportunity to easily and creditably take an active and important part in the advancement of the profession, and the trial of this course thus far promises much for the future.

Results Accomplished by Illinois State Society.

Each of our local societies is privileged each year to invite any dentist of the State to attend one of its meetings and read a paper, at the expense of the State society. Our State society also sends men all over the State to deliver public lectures under the auspices of local societies, or before normal schools. We are making examinations of the teeth of our school children, we have established a number of free dental clinics, we have secured the appointment of resident dentists in several of our State charitable institutions, we have secured the passage of a law exempting dentists from jury duty, we have distributed thousands of educational pamphlets to the general public, we have in Chicago a dentist as a regular member of our City Health Department, who devotes half of his time to this work. We have arranged for the publication of unsigned articles of interest to the public on the care of the mouth in practically every newspaper in our State once every week. The arrangement for the publication of these articles includes our big Chicago daily papers as well as the daily and weekly papers of the smaller towns, about one thousand newspapers in all. These articles average about half a column each; thus there will be published during the year about twenty-six thousand columns of matter on public dental education.

The opportunity offered under this plan of organization for the guidance of the local society by the officers and committees of the State society is of the greatest importance. We believe that the majority of the local societies organized in our State seven years ago would not be in existence to-day but for the constant watchfulness and prodding of the secretary of the State society. We organized (a few were former societies reorganized) thirty-one local societies in 1904, covering all the territory of our State. There has been no change in these local societies in the seven years that have elapsed, except that the number has been reduced to twenty-eight by consolidations of some of the smaller societies. These local societies have held their meetings and conducted their business with wonderful regularity, and have made greater progress than any one could have reasonably expected, in view of the fact that in the territory of several there was not a single member of the State society previous to the reorganization. Nevertheless there has been almost no period during this seven years when some one or two of these societies did not appear to be on its last legs and to require a rejuvenating injection from the State society. Occasionally interest has waned to the extent that it has been necessary for the secretary of the State society to prepare the program and make all of the arrangements for the local society meeting, in which case he might send one or two men from other

sections of the State to inject new life and enthusiasm. Thus the conduct of these component societies becomes a broad plan of co-operation, in which the more successful and vigorous are, through the medium of the State society, constantly assisting the weaker and less enthusiastic.

Education of the Public.

As another example of the value of the intimate relationship and close co-operation between the State and local societies, I give you an outline of our plans for the education of the public in our State for the coming year; this in addition to the newspaper articles already mentioned. We have a supervisory committee, known as the Public Service Commission, which is made up of the chairmen of five other committees, all of which are subordinate to the Commission. This Commission has planned to present every phase of the public education and oral hygiene movement within the territory of each component society in a systematic and comprehensive way. After certain necessary information and data have been secured, the Post-graduate Course Committee will send a list of articles on oral hygiene to the members of the local society, and this subject is to be made a special order for one of their meetings. At this meeting or the next one, one of the State society's staff of lecturers will be sent to deliver a lecture on oral hygiene, emphasizing particularly those things which the dentist should tell and endeavor to teach his patients. All the members of the corresponding local medical society, and the nurses of the community, are to be invited to this meeting, which is to be held in the afternoon. Arrangements will have been previously made for the same lecturer to deliver a public address in the evening on the relation of the care of the teeth to the general health, or some similar subject. For this lecture special invitations will have been sent to all members of the Board of Education, school teachers, members of women's clubs, etc., and proper press notices will have been supplied to the local newspapers. The society's educational booklets are to be distributed at both meetings. If arrangements have not previously been made for the examination of school children's teeth in the community, it is expected that that will be done immediately following the meeting, and agitation for the free dental clinic will be carried along at the same time in those localities where this is desirable. This plan once developed for the territory of one local society may be easily applied throughout the entire State. The members on the Commission will be constantly in touch with all phases of the work throughout the State, and can gradually modify and improve their plan as experience directs.

Improved Dental Fees.

It might not be out of place to mention in connection with the improvement of the dental service in our State, a corresponding improvement in dental fees. I believe it is a conservative statement to say

that the total of dental fees in Illinois has increased five hundred thousand dollars per year as a result of our reorganization. This is not because we have made any systematic effort in this direction, but it has occurred as one of the natural sequences of the reorganization. I am sure it is equally true that the people of our State, in paying the increased amount, have benefited more than our dentists, for the improved service they have received has been more than worth the difference.

The Illinois State Dental Society has come to be a large organization, as viewed from the standpoint of the business it transacts. There is mailed each year from the office of our secretary more than fifty thousand pieces of mail. The society is conducted on the most liberal lines possible. Its officers and members realize that the measure of success attained must depend upon the maintenance of the active co-operation and interest of the greatest possible percentage of the dentists of the State. To each and every member is given the opportunity to take part in the work of the local societies, and these are made the training ground for the meetings of the State society. It is the custom in both the State and the local societies to pass things around, and to constantly place new men in responsible positions. There is little opportunity for the man who seeks office for notoriety. It is recognized that there are in the society many groups of men whose interests are more or less dissimilar, and the effort is made to give each group proper representation, also to give each section of the State its share.

In order that you might know that this plan of reorganization has been successful in other States, I recently wrote to men in several States asking for a brief statement relative to conditions before and after reorganization. I will read a few lines from these letters:

Michigan.

"It has been stated repeatedly that the history of the Michigan State Dental Society begins with the reorganization in 1907, but, of course, you understand we had a society, and a fairly good one, previous to that time. We had at that time about 1,200 dentists in the State, and about 350 names on the membership list, but we really had only 109 or 110 members with their dues paid up within one year, leaving our actual membership around 12 per cent. or 15 per cent. At the present time we have about 1,500 dentists in the State, and have on the dues ledger 734 who have paid up. These figures do not speak of even a small part of the change that has come about as a result of the reorganization. Men have learned to get together, and as a result of getting together petty jealousies and the like have vanished.

"Assuring you that the accomplishment of the many changes in the

profession in the State as a result of reorganization is one of the delights of my life, I remain, Most sincerely yours, Marcus L. Ward."

Ohio. "Our present membership consists of 789 paid members, against 250 before the reorganization some three years ago. At that time there were six or seven local societies in Ohio, and at this time we have sixteen. In some sections of the State, where members of the profession seemed at swords points, good fellowship now prevails, and as the reorganization progresses, the profession in Ohio will be as a unit where the best interest of the profession is concerned. Yours very truly, Edward C. Mills."

Iowa. "The reorganization has been of untold value to our profession in Iowa; our attendance was about 150 before; now about 500 to 600, with a good steady growth each year. Our district societies are all prosperous, and some of their meetings rival the State society in interest and enthusiasm. It has been a wonderful thing for us. Very truly, J. A. West."

Missouri. "Reorganization in Missouri has not been the blooming success that it was in Illinois, though it has been exceedingly helpful, especially in certain localities where dental organizations were unknown. In the short time since our society was reorganized we have enlisted, as active and enthusiastic society workers, fully 100 splendid dentists who had hitherto taken no interest whatever in dental organizations.

"Our State association this year, the first since reorganization, opened with nearly double the attendance we have ever had before, and our clinics numbered 138, which is more than double the number we have ever been able to claim before. The profession in this State would not consider going back to the old system under any circumstances. Yours truly, S. C. A. Rubey."

Kentucky. "Our State society is organized very similar to the State society of the American Medical Association, being composed of societies made up of one or several counties, as the case may be, and we are finding it to be a splendid plan, making better working organizations. Yours very truly, I. B. Howell."

Nebraska. "It is with pleasure that I write regarding our State reorganization. We divided our State into six districts, each of which holds an annual meeting of one or two days, and most of these district societies have been very successful. I could write several pages on the benefits to be derived from them and the work we have done. Since the reorganization we have

ecured more than seventy per cent. of the dentists of Nebraska as members of the State society. Very truly, E. A. Meservey."

Oklahoma.

"Reorganization has already worked wonders in the dental profession in this State, and we have just started. We now have about forty-five per cent. of the dentists of the State as members of our association, and this has been brought about without any extraordinary effort on the part of the men in charge of this work. We expect to increase our membership to at least sixty per cent. At the recent State meeting we had the largest and best meeting in the history of our organization, the attendance being about fifty per cent. of our membership, and this despite the unfavorable location of the meeting place. We certainly consider the plan a decided improvement over any our previous organization has had, and it should be adopted by every State dental society in this country, as well as by our National Association.

"This plan of reorganization means to the dental profession what the great commercial interests are accomplishing in the reorganization of the commercial world, as it brings the different sections and societies of the State into a central organization in a systematic way, and by working under a common head puts us in a position to do the things we attempt to do. Sincerely yours, C. R. Lawrance, President of Oklahoma State Dental Association."

Pennsylvania.

"You ask what improvement is noticeable in the Pennsylvania State Society since its reorganization. I am pleased to say that its membership has been more than doubled, and nearly every local society in the State has become a component society, or is making application for State membership. Larger meetings and more enthusiastic ones have been held. Instead of a few men taking an active part in the work of the society, a great many more men have been interested, and there has been especially noticeable a marked development and interest on the part of the younger practitioners, who, before our reorganization, seemed to be discouraged rather than encouraged to take an active interest in professional affairs.

"The increased interest in the local societies is even more noticeable than that in the State. While we have not attained a numerical membership as rapidly as some of the other State societies which have been reorganized on modern plans, we have tried to do our work thoroughly. The opposition to reorganization, which we met at the hands of a few of the older members who openly opposed progress, was easily overcome, and we believe that a feeling of general harmony now prevails, as our recent meeting in the eastern end of the State was practically a love feast. Yours cordially, H. E. Friesell."

Wisconsin.

"The benefits accrued from reorganization may be briefly summarized as follows:

"First—In three years we have doubled our membership without half trying, and have now more money in the treasury that can be used for scientific purposes than we ever had before in the history of this society.

"Second—Delegating the business management of the society work to the Executive Council has been shown to be of great economic value, and has prevented the discussion on the floor of unnecessary detail, and has resulted in greater efficiency.

"Third—Component societies, wherever located, have interested our young men, and this has been a great training school for these, and has prepared them for the larger work in the State society. It has also harmonized the men in these localities, so that by the time they attend the meeting of the State society, there are no personal differences.

"Fourth—Reorganization has eliminated politics from our meetings, and all are now working for the good of the whole.

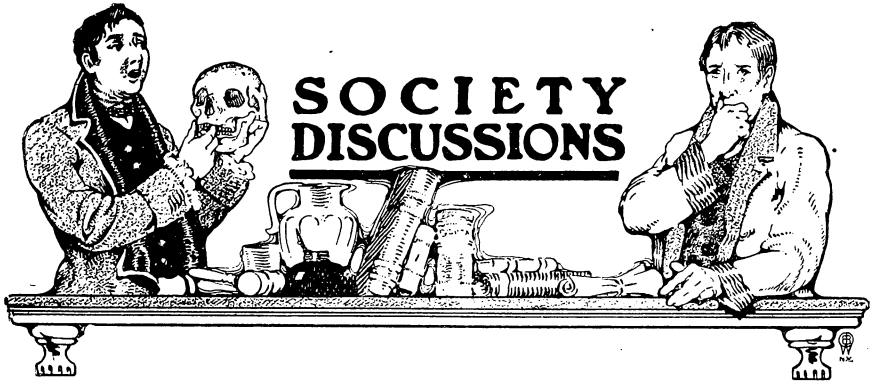
"Fifth—Reorganization has resulted in a united dental profession in Wisconsin, which is attested by the fact that we have just concluded the most harmonious and successful meeting we have held in twenty-five years. Wisconsin dentists now work shoulder to shoulder like brothers for the uplift of dentistry in this State and the profession at large.—Henry L. Banzhaf, President Wisconsin State Dental Society."

You now have in New Jersey ten local societies with a total membership of nearly 400. I presume that most of these men are already members of the State society, and have no doubt but that practically all who are not would immediately become members if the reorganization plan is adopted. If no changes were made in your present local societies you would then have united all of your dental organizations under one head, and the resulting unity of effort alone would make your undertakings easier of accomplishment and much more effective. If the remaining sections of your State should be similarly organized, so that you would have six or seven hundred members, which you certainly should have, then the dental profession of this State would be in a position to carry out any proper undertaking, and make its influence felt to the fullest degree throughout the entire State.

The success of this work in Illinois and other States has been due more to one thing than to all others combined, and that is to the establishment, through the medium of the component society, of good acquaintance and good fellowship among the dentists of the various communities of the State. The establishment of good fellowship is the key to success. It has been very noticeable that those societies in which the

men were well acquainted made good progress with any undertaking, and that almost nothing could be accomplished where good feeling did not prevail.

I would, therefore, select as my last word to you, in the consideration of this question, that you make the establishment of good fellowship the foundation of the future work of this society. If you are unwilling to get together and do this, then do not undertake this plan of reorganization, for you will surely fail. But if you are willing to make it your rule that the welfare of the entire organization must have precedence over the personal ambitions of some individuals, that each man must consider the good of the society first, that of himself second, then I know that you can accomplish in this State, within a few years, things of which you now only dream.



New Jersey State Dental Society.

Forty-first Annual Session.

Wednesday, July 19,—Morning Meeting.

President Naylor called the meeting to order and said: Ladies and gentlemen, it affords me much pleasure to extend to you all a most cordial and fraternal welcome to this, the opening session of the Forty-first Annual Meeting of the New Jersey State Dental Society.

It is to be regretted that we have not with us this morning the Mayor of the city, to extend to us his usual words of welcome, but in his absence we are very glad to have with us Dr. Pratt, of Asbury Park, who will address you.

Dr. Thomas H. Pratt. Mr. President, Ladies and Gentlemen—We are, all of us, of course, members of the New Jersey State Dental Society. The Mayor, whose custom it has been to welcome you at these meetings, has been called to New York on important business, and I have been deputized to perform that duty for him. The city of Asbury Park is very proud that you meet here year after year, and we are very pleased to be able to make you comfortable and happy; and, as most of you have been here so often, you know the city about as well as anybody could know it, but if there are any here visiting us for the first time, I want to say to them that the city of Asbury Park has a publicity bureau, where the men in charge will be glad to give you any information you may seek; I may also say to you that the city has had the Casino remodelled, so that it is a real nice place to visit. We are sorry that we cannot give you a meeting hall that is as convenient and commodious as this, but I can assure you that hereafter we will have a large meeting hall.

Of course, as you may well understand, I have not had the time to prepare a formal address, but it occurred to me while I was sitting here that it is about twenty years since I attended my first dental convention in a room not half as large as this, in which were held all the clinics as well as the dental meetings; and in that twenty years this society and this convention has grown from a handful of members to its present imposing dimensions. As Asbury Park has grown in the past twenty years, so has this State society grown, until now it is one of the most important dental conventions held in this country.

There is not much else that I can say to you except that, in the name of the Mayor and the citizens of Asbury Park, I extend to you all a most cordial welcome.

Dr. Meeker. Mr. President, I move that a vote of thanks be extended to Dr. Pratt.

Dr. Meeker's motion was duly seconded and carried, and a vote of thanks was extended by the society to Dr. Pratt.

President Naylor. The next order of business will be the roll-call.

The Secretary then called the roll and declared that a quorum was present.

President Naylor. The next order of business will be the reading of the President's address.

At this point Vice-President W. W. Hawke assumed the chair.

Vice-President Hawke. Following our usual custom, we will now listen to our President's annual address.

President Naylor read his annual address.

Vice-President Hawke. (In the chair) You have heard the reading of the President's address; what is your pleasure?

Dr. Dilts. Mr. Chairman, I would recommend that the usual course be taken; that a committee be appointed to report on the President's address, and that we proceed to discuss it.

Dr. Dilts' motion was duly seconded.

(After a lengthy debate on several amendments, the Vice-President finally stated the motion as follows):

Vice-President Hawke. (In the chair) The motion is that a committee of five be appointed to report on the President's address, and that the discussion take place at once.

A Member. I will amend that last line to read—"And that the discussion take place after the report of the committee."

Another Member. I second the motion.

Vice-President Hawke. (After putting the motion) The ayes have it.

A Member. I call for a division.

Vice-President Hawke. All that voted in the affirmative will stand, and the Secretary will please count the votes.

The Secretary announced that the negative vote was 31 and the affirmative 49.

Vice-President Hawke. The amendment is carried. Now the motion is that a committee of five be appointed. All those in favor of the motion will say aye, contrary, no. It is so ordered, that a committee of five be appointed.

Dr. Vinson. I move that the chair appoint this committee.

Dr. Vinson's motion was duly seconded and carried.

Vice-President Hawke. I will appoint on that committee Dr. Paul Beam, Dr. Charles Dilts, Dr. B. F. Luckey, Dr. Joseph Vinson and Dr. Pruden.

President Naylor. (In the chair) We will now proceed with miscellaneous business.

At this point the Secretary read a letter from W. G. Ebersole, presenting an appeal for financial support for the work of the Oral Hygiene Committee.

On motion, duly seconded, the communication was received and placed on file.

Dr. Meeker. I have a long communication from the American Miller Memorial, saying that our committee is bound for $100. I do not see Dr. Farr here. He collected quite a sum of money and turned it in.

A Member. Was the entire $100 collected?

Dr. Meeker. I don't remember whether it was all collected or not. It was collected and forwarded to Dr. Truman W. Brophy, who was the treasurer. I do not know whether Dr. Farr received it or not, but he made a report of progress for two years. What is your pleasure in further contributing?

Dr. Sutphen. I move that the matter lay on the table until we hear from the Dr. Miller Memorial Committee.

Dr. Sutphen's motion was duly seconded and carried, and it was so ordered.

President Naylor. Is there any further miscellaneous new business to come before us at this time? If not, we will listen to the report of the Membership Committee.

A Member. The chairman of the committee said that he was not ready to report.

At this point, on motion, duly seconded, the meeting was adjourned until 8 o'clock P. M.

Evening Session.

President Naylor called the meeting to order.

President Naylor. The first thing in order this evening will be the roll-call.

Dr. Meeker. I move the roll-call be dispensed with.

Dr. Meeker's motion was duly seconded and carried, and it was so ordered.

President Naylor. Due to the fact that Dr. Schamberg is trying to straighten out his slides, we will utilize the time by listening to the report of the State Board of Examiners.

Dr. Meeker read the report.

The report having been read, on motion, duly seconded and carried, it was ordered received and filed.

President Naylor. I will now call upon Dr. Thompson, the Chairman of our Essay Committee, to introduce to you the speaker of the evening, Dr. Schamberg.

Dr. Thompson. Mr. President and ladies and gentlemen, members of the New Jersey State Dental Society, it gives me great pleasure, in behalf of the society, to introduce to you to-night Dr. M. I. Schamberg, who will address us on the subject of "The Progress of Radiography in Connection with Dentistry and Oral Surgery."

At this point the lights were extinguished and Dr. Schamberg, with the aid of stereopticon slides, addressed the meeting on the subject referred to, and at the conclusion of his lecture, on motion of Dr. Meeker, duly seconded, the thanks of the society were tendered to the speaker; whereupon, on motion of Dr. Meeker, duly seconded, an adjournment was taken until Thursday morning, July 20th, at 10 o'clock.

Thursday, July 20—Morning Session.

The meeting was called to order by President Naylor (in the chair).

The President. There being a quorum present, a motion is now in order to suspend the roll-call.

It was duly moved and seconded that the roll-call be suspended, and it was so ordered.

President Naylor. We will now have Dr. Thompson, Chairman of our Essay Committee, introduce to you our speaker of the morning.

Dr. Thompson. Mr. Chairman and members of the New Jersey State Dental Society, in behalf of the Essay Committee I have the pleasure of introducing to you Dr. Frank E. Cheeseman, of Chicago, who will read a paper to you entitled, "A Plea for the Return of the Use of the Porcelain Inlay."

Dr. Cheeseman thereupon read his above entitled paper.

Discussion of Dr. Cheeseman's Paper.

Dr. Stockton. Gentlemen, you have heard the paper of Dr. Cheeseman. All of you are using porcelain more or less, and I trust you will show your appreciation of this most excellent paper by now discussing it.

Dr. S. C. G. Watkins. Mr. President and Gentlemen—I have listened to this paper with a great deal of interest. I do some porcelain work, but I have never been an enthusiast. I have always had a feeling, or did have a feeling, for a long time, that I could not afford to do porcelain work because I could not thoroughly depend upon it. In doing gold work, I feel that that can be depended upon, and a beautiful, well-finished gold filling, to my mind, is preferable in a great many cases—I cannot say in all cases—to an imperfect porcelain inlay; and most of the porcelain fillings that I have used have been what I term imperfect—imperfect in their shading, and because of the dark line which will underlie the margin of the filling. Consequently, I was slow to adopt porcelain; but I did adopt it, though in a very conservative way, and I have been very anxious to know whether many of the profession felt as I do in regard to porcelain, and what proportion of the profession favored it. I would like to know how many are using porcelain to-day who were in the habit of using it very largely a few years ago; and I would like to ask right here, how many there are in this room who are in the habit at the present time of making and putting in two porcelain fillings a week—two a week only. Hold up your hands. (Only a few hands were raised.) That isn't very many.

It would seem from the showing here that the people who were enthusiastic have lost their enthusiasm to a very large extent. It is very difficult to get the color and make a perfect adaptation. I was very much interested in Dr. Cheeseman's method of preparation of cavities. I think that perhaps if a great many of us who are using porcelain fillings were to work under Dr. Cheeseman, we could do the work more satisfactory to ourselves and to our patients. His preparation of cavities

seems to me to be very excellent, and I must admit that I think his method of preparing cavities is better than mine. That may account for his enthusiasm in the use of porcelain, and my lack of it.

Dr. Stockton. We would like to hear from Dr. Strausburg.

Dr. Strausburg. It is always an honor to be called on to discuss any paper emanating from Dr. Cheeseman. I am heartily in favor of the use of porcelain in dentistry. The difficulties with its use are always due to the dentists' not giving enough time to its study and adaptation. I very much regret that I did not hear all of the paper, but I want to comment on one point, namely, the stains. I do not think the staining of any surface will actually beautify its appearance; that is, you cannot reproduce the natural color of the tooth if you only stain the outer surface of the porcelain.

Dr. Stockton. Dr. Black, of Chicago, is here. We would be very glad to hear from him.

Dr. Arthur Black. Mr. President, I was unfortunate enough not to get here quite soon enough to hear this paper read in full; I only heard the very last part of it. I am very glad to take the floor for a moment, however, in response to the call from your chairman, and, further, I am very glad to be here, and while I am on my feet I am going to say a word with regard to Dr. Cheeseman's work with porcelain. While I did not hear his paper, I know quite a little of his use of porcelain, his work with it, and what he has accomplished, and I lay emphasis on the words, "what he has accomplished," because some men claim more than they actually accomplish. Dr. Cheeseman, I know, and work of his I have personally seen; what he says in his paper he does; and I am sure that not one of us has accomplished in this work what he has. I have always had, myself, rather definite and set ideas as to the places at which porcelain should be used. I know that Dr. Cheeseman recognizes the fact that we cannot use porcelain in places where it will cover the margin and expect those margins to be good. There is one idea in connection with the selection of cases for the use of porcelain and porcelain preparation which I wish to mention, and that is what we might term a successful porcelain inlay. Granting for the moment that porcelain inlays are reasonably serviceable, sufficiently so to justify the use of them, we must, over and above that, consider the personal ability of each operator to perform a porcelain operation that will be successful. To my mind, a porcelain inlay, to be successful from the standpoint of service, should be so well executed that a person standing at a distance from the patient having the porcelain inlay would not notice it. If we are not fully wedded to our faith in the making of the

porcelain inlay, then to my mind a gold filling, well made and well polished, is a better filling, because some porcelain inlays have not the color, and an inlay which does not deceive to the extent that it does not attract attention, to my mind is worse than a well condensed and nicely polished gold filling. Therefore, where it is not possible to get such result as I have mentioned, it is a mistake to use a great deal of porcelain. Such an operator should limit his use of porcelain until he has studied well the manipulation and use of porcelain. To my mind, one of the greatest items for each man to consider would be each man's personal ability to use it; and, of course, any man's ability to use this or any material could be very much improved.

I believe the abandonment of the use of porcelain is due to the fact that men have not studied the use of porcelain as they should study it, whereas they would have been successful in the use of it if they had devoted the time to it that I know Dr. Cheeseman has.

Dr. Sutphen. Mr. Chairman and Gentlemen—When I looked over the program, or when I heard the report of the Executive Committee, I was very much pleased to know that we were to have a paper read to us by Dr. Cheeseman. In the same way, indeed, I have been surprised that it was necessary to announce that there was to be a plea for the return of the use of the porcelain inlay. It is a mystery to me that porcelain is not more largely used than it is, and a still greater mystery that those of us who ever commenced the making of porcelain fillings should ever have abandoned their use. The porcelain and the gold inlay have been the two greatest improvements that have been made in the science and practice of dentistry. When I first commenced the making of porcelain inlays, one of my confrères said to me one day, "Does it pay?" I replied, "No, it does not." "Well," he said, "I am going to wait until it does before I start making them." Now it did not pay for this reason: When we commenced the making of porcelain inlays, it required a great deal of study, work and preparation before we obtained results that were satisfactory. But later, a new technique presented itself; it required new study, the methods needed to be considerably modified; that took our time at the chair and in the laboratory, and required the burning of the midnight oil, and for that reason, I might say, that porcelain did not pay, because in those days it took all of our time that ought to have been devoted to our other work. Yet all that was absolutely necessary; we had to bring ourselves to the time when it would pay not only in dollars and cents, but in the good that we could do to our patient, and in the æsthetic fillings we could give to them; and I have many times said to my patients, when looking at a

porcelain inlay, "As long as this inlay appears to be part of your natural teeth, I consider that it is a successful accomplishment, because of the æsthetic result. If it is imperceptible to your friends, I consider that success has been accomplished."

The preparation of cavities, as outlined to us this morning by Dr. Cheeseman, was very interesting indeed, and gave me some ideas that I had not previously, and I shall be very glad to study the paper and the demonstrations he has made, and apply them in my own work; and I am very confident that if as much study, care and patience will be taken by us all in the preparation of cavities in the making of our porcelain fillings as has been given by Dr. Cheeseman in his work, there will never again be necessary a plea for the return to the use of the porcelain inlay.

Dr. B. C. Baker. Mr. President and Dr. Cheeseman—I am very glad to have heard this paper this morning. No doubt a great many men have abandoned the use of porcelain, and they have abandoned it merely because they did not learn to manipulate it correctly. I think most men made up their minds that they wanted to get something that would be easier to make, something that they could make money with quickly, and the result was that they started to make their fillings in the same manner. I have been very much amused to hear some men, men to whom, as a young man, I was looking up to, praising porcelain, and then to see the fillings that those men would insert—cavities that were positively saucer-shaped, depending absolutely on the cement to hold them. We all know that you must shape the cavity so that it would almost hold the inlay of itself.

Shortly after I started the use of porcelain I heard someone remark that to prepare a cavity for a porcelain filling you should prepare it so that the inlay would fit the cavity almost as a stopper fits in a bottle, and I have followed that practice ever since, and I have had very few failures. If in the old days we had had talks like the talk we have had this morning by Dr. Cheeseman, I think every one would be using porcelain to-day. I do not see why porcelain should have been abandoned. Those that have abandoned it might better start to take it up again. You must remember that porcelain is easily fractured, and it must follow that to put porcelain in the teeth which do a great deal of grinding, and where the filling is not thick enough, is to invite failure, but that is the fault of the operator.

I thank Dr. Cheeseman for being here to-day, and I think porcelain filling in this section of the country will be taken up again.

Dr. Stockton. Is there any other gentleman present who desires to discuss this paper? If not, we will hear from Dr. Cheeseman.

Dr. Cheeseman. Mr. President, Ladies and Gentlemen—I want to thank you for your kind attention to the paper I have read, as I thank you for the invitation extended to me to appear before your society. I do not know whether you realize it or not, but we, out in the middle West, feel toward, and always look upon, your New Jersey State Dental Society as the pioneer society of the East, and I feel that it has been a great honor to appear before you and read this paper.

I have been an enthusiastic user of porcelain for the last ten years, and I have every reason to feel thankful that my interest in it was sustained sufficiently to carry me through the years of doubt and disappointment which you earlier members of the profession had to go through, and which have made most of you abandon its use. But I had an idea, notwithstanding the many mistakes I made, that the use of porcelain was all right if it was handled correctly and used correctly. Now I do not claim to have any special ability along this line over any other man, except that I have kept at it with dogged determination to formulate a plan of work that would bring exact results, and I believe the possibilities outlined in this paper to-day will insure as great success as that attained by any man in the use of gold foil. I know this because I have the proof of it. I was glad to hear Dr. Watkins say that he could not afford to use porcelain—at least he thought he could not. I hoped somebody would say that, because that is the greatest sophistry. There is not a man in the room who cannot afford to use porcelain. If you will pardon me for a personal reference, I may say that up to the time when I began to use porcelain I was working along in a modest way, and to-day my practice is three times as large annually as it was then, and I believe that my prices to-day are three times as high. Not only that, but I am to-day working for some of the best people in Chicago. So I say that no man can afford not to use porcelain. But he cannot afford to use it if he inserts porcelain inlays within two weeks or two months after buying an outfit, using a technique entirely his own.

Dr. Strausburg spoke about Lenox stains. I said that the tendency with the average dentist was to make inlays too light. That is sometimes my experience. In case that I do that in a large restoration, I correct my color with the stains. I do not agree with Dr. Strausburg about the Lenox stain, because there is hardly a crown that I put in a mouth but that I use the Lenox stains. I merely mentioned the fact that they could be used. If you find that you have made a mistake in a large restoration, that your inlay is too light in color, by the use of these Lenox stains, it is a very simple matter to make them right. Dr. Baker said that one trouble is that men do not take the time to learn how to use porce-

lain inlays; he is right. Many who are a credit to the profession in other lines try to make porcelain inlays after an experience of two weeks, or two months; after they have made five inlays and four and a half of them were failures. But we all know that no man, no matter how intelligent he may be, can learn how to make porcelain inlays in two months; much nearer two years will be needed, but it is the best two years that any man ever invested in professional study. Any dentist certainly can afford to make porcelain inlays correctly, because by doing so he attracts the very best class of patronage in the city in which he lives.

Dr. Sutphen said that he was surprised that it should be necessary to read a paper as a plea to return to the use of porcelain inlays. The reason I read this paper was because it seems very necessary, for we find a very small percentage of men using porcelain inlays.

Dr. Baker spoke of porcelain fracturing. That is undoubtedly true. If you have an attenuated area, of course it may fracture, but I know of porcelain inlays in molars and bicuspids—I have made some—where they have been subjected to the stress of eight or ten years, and have resisted dislodgment, and without fracture. No doubt many of you have seen fractured attenuated areas, and if proper margins are formed and the filling is deep enough, there will be no more fracture than there will be in a gold foil filling.

Gentlemen, I thank you very much for your attention.

Dr. Stockton. We are all, I am sure, very greatly indebted to Dr. Cheeseman for his very interesting and instructive paper and remarks, and a motion to extend to him a vote of thanks by the society will be in order.

A motion that the thanks of the society be extended to Dr. Cheeseman was made and duly seconded and carried.

Adjourned until 8 P. M.

Evening Session.

Meeting was called to order by President Naylor (in the chair).

President Naylor. It is quite evident that we have a quorum present. A motion to suspend the roll-call is in order. I will entertain a motion to that effect.

It was moved and duly seconded, carried and ordered that the roll-call be suspended.

President Naylor. Gentlemen, we have with us to-night, Dr. Dalton, of Cincinnati, and Dr. Thompson, Chairman of the Essay Committee, will introduce the speaker to you.

Dr. Thompson. Ladies and gentlemen, members of the New Jersey State Dental Society. It gives me great pleasure to introduce to you the first speaker of the evening, Dr. Van Broadus Dalton, of Cincinnati, who will read to us a paper entitled, "The Cause of Open Bite Mal-occlusion."

Dr. Dalton read this paper.

President Naylor. I am sure that we all feel very grateful to Dr. Dalton for this paper, and I think it would be in order to extend a vote of thanks to him.

On motion, duly seconded, and unanimously carried, a vote of thanks was extended to Dr. Dalton.

After much discussion of purely local affairs, Dr. Arthur read his paper, published in this issue.

Discussion of Dr. Black's Paper.

Dr. Stockton. Mr. Chairman and gentlemen. I did not expect to discuss this paper at all. I certainly am under great obligations to Doctor Black, and especially so as his father and myself are very great friends; so it is a greater pleasure for me to listen to the son to-night.

Doctor Black, I think, is somewhat mistaken in regard to our situation. Many of the local societies and many other societies to which he referred in the correspondence which he read to us were not in the condition in which our society is to-day. Take the great State of Illinois, five times as large as the State of New Jersey, and yet before reorganization they had a membership of less than two hundred and fifty. Is it any wonder, gentlemen, that they wanted reorganization? Take any of the States that he named; they were in a run-down condition; life or death seemed to be the problem with them, whether they should live or die, and they chose to live by adopting a plan of reorganization, which has resulted in their benefit. We are in no such condition as that. There are only about seven hundred dentists in this State, and we have three hundred and fifty-three members in this society, if I remember the figures correctly. And how many new applications have we?

Dr. Adelberg. Very nearly a hundred.

Dr. Stockton. That makes a large proportion of the dentists of the State of New Jersey as members of this society. We do not want to grow, under reorgani-

zation or in any other way, any faster than we are growing now. They claim that they will get all the dentists of New Jersey into our society if we reorganize. What has been the condition in the past? Everybody has been permitted to come here and listen to such papers as we have heard read to-night, and to witness such clinic demonstrations as we have had, and to see the magnificent exhibits we have at the Casino, all without any cost. The dentists of New Jersey have taken advantage of our liberality and have profited thereby as we have profited by their membership. That has been our chief error, in not shutting the doors against such men; men who have taken advantage of us and have obtained for nothing what they should have been obliged to get only by having to pay for it.

So we are much differently situated from what you were in Illinois. You in Illinois were a good deal in the condition of the railroad of which Mr. George Gould at the present time is president—I refer to the Missouri Pacific. He was once making a journey through the States through which his road runs and the engine that was pulling his special car gave out, and an old mechanic was called upon to repair it. The old mechanic told Mr. Gould that the engine could probably take him to the next station; and Mr. Gould said, "Why, I want to go to the end of the road"; and the mechanic said, "Well, it will only take you to the next station"; and Gould said, "Look here, do you know who you are talking to?" And the mechanic replied, "Yes, I know very well who you are; you are president of the road, and your father before you was president of the road, and he will be president again." "What do you mean by that?" asked Mr. Gould; and the mechanic replied, "I mean by that, that he is in Hell, and the road is going there, and when it gets there he will be president again." Now that was a good deal like the condition of some of these societies that have taken up reorganization. We don't need to reorganize; we are a live society. One of Dr. Black's fellow members said this morning that it was one of the proudest things that ever occurred to him that he had been invited to come before this society and read a paper. And so it has been through all the life of this society; eminent men from all over the country have been glad to come here and tell us what they know, because they knew that they were coming to a live society, not to a dead one that needed life put into it.

Dr. Baker. Dr. Black said a great deal about the publication work they do in Illinois and the circulars they send out, and the charity work. How grand it would be in New Jersey if we could do the same thing; if we had three thousand members and the income that goes with such membership to do the

work that they do. But we have no such an income. In fact I have heard it stated that we have been obliged to reduce our initiation fee. We certainly could not accomplish anything if we reduce our income. In fact to accomplish anything like Dr. Black says they accomplish in Illinois, we ought to double our dues and raise our initiation fee and thus make this society more valuable to our State. Further than that, I am more than pleased at what Doctor Black said, because we in New Jersey are doing the same thing as they have done in Illinois. We have seven hundred and fifty-five dentists in New Jersey, three hundred and thirty-eight of them are members of this society—I think that is the correct number. There are one hundred and twenty-five advertising men in New Jersey. That leaves but two hundred and ninety-two men to come in. We have one hundred applications to-night. Thus there are probably ninety-two ethical dentists in the State outside of the society. Doctor Black has also stated that we have ten local societies in New Jersey with a membership of four hundred. We have a membership in this society of three hundred and eighty-eight. So that on the face of it there are only twelve men in the local societies outside the State Society. That being so, why should we reorganize? All we need to do is to raise our dues and get more money and start this work.

Dr. Fowler. This matter of reorganization is one that has been in the hands of the young men, and I wish to make the remark, in regard to the question of increased membership, that in 1907, when the matter of reorganization was first spoken of, the membership of this society was only about one hundred and eighty. At that time the question of reorganization was put before the society, and the result of that agitation in the first year attracted a new membership in the neighborhood of fifty, and in the succeeding years has brought about the increase up to now, all of which is the result of the work on reorganization. It is the result of the effort on the part of all dentists who are trying to upbuild dentistry in New Jersey, to bring about that condition of which Doctor Stockton has spoken—harmony. It is harmony. You see it by the number of applications. There are many points in favor of reorganization. I have studied it for many days. Doctor Black's address is wonderful; it must be a revelation to most of us to know that such good can be accomplished by such reorganization.

Dr. Elin. Mr. President and members of the State Dental Society. I came here with my mind not made up one way or the other. When I came down here I found that there were two factions. I have received literature from both factions.

Mr. President, I have been a member of this society for the past four years, and I want to say that this is the first time that I have seen such a remarkable gathering as I see here to-night, and that shows that there must be some new spirit favorable to this organization. Last year I do not think there was one-fourth as many members present as are here to-night, and that shows that there is a new, progressive spirit, in which the young men are taking an active part in the interest of dentistry in the State of New Jersey, and they want to take a lesson from Illinois. It is a remarkable showing which the Illinois organization has made. From two hundred members they now have a membership close on to two thousand. That shows what can be done when there is new interest and when the young men take interest and have new spirit in a State Dental Society. Addison truly said that if you do not go forward you surely go backward. This is an age of progress in everything, and it is the young man of to-day, who shows his mettle, who gets to the top of the ladder; and I want to state again that there should be reorganization, and there should be a spirit of harmony that should actuate every member to aid the interests of dentistry in this State.

Dr. B. F. Luckey. Mr. President and Ladies and Gentlemen. I have followed the discussion of this paper very closely from its start by Dr. Stockton down to and including our friend who has been a member of the society for four years and who I do not know even by sight, although I have been an active member of the society for the last thirty years. I do so like to hear these young men come in and tell the older men how to run the society. I take off my hat to Doctor Black, who has given us more information than all the reorganizers in the State society put together. He has not convinced me, however, that the project that he favors is one that would succeed in New Jersey, for the conditions that exist here now, and which existed at the time reorganization was first mooted in Illinois, are entirely different. The situations in the two States are totally dissimilar. The people of Illinois were in need of education. Doctor Black's experience in Chicago may be typical of that on the borders of the State and in the interior of it. I voice the attitude, I think, of the men who have the deepest interest of this society at heart, men who have been prominent in its cause, the men who have stuck to it through sunshine and shadow, men who have been treated at times with the greatest indifference. Those men, I say, are the men who, I think, can be trusted to-day, for this society knows them to its uplift and to its benefit. Harmony is the word, and it is the sweetest and finest pearl that dropped from Doctor Black's lips. It has more weight than all the arguments he presented and all the testimonials

he offered. The reorganization proposed by him is not along the lines that this society wants. This reorganization seems to be along lines that they have effected in Illinois, the State Society having taken in the local societies. The local societies there may be organized along the same plan. That is so in this State. We have local societies in New Jersey, composed of anywhere from six to ten members, up to the Central Dental Association, having a membership of one hundred and fifty. It is like this society, not a local, but having members from all sections of the State. Now it is proposed by this plan to make up an executive committee formed of one member elected by each of these constituent societies, to form the executive committee of this State Society. Does it seem right and fair to any clear thinking man that the Central Dental Association should be compelled to come in here with only one member of the executive committee of the State Society, while some little local dental society would also come in on an equal footing with the Central Dental Society, with one vote and one voice? Reorganization, gentlemen, I believe, will be of benefit to this society if properly mapped out and properly carried on. Reorganization and reconstruction are good for almost every interest, at times. My objection to reorganization, as proposed here, is as to its plan. I hope that it will not succeed. I hope that we will be able to strengthen the old constitution and by-laws where needed by amendment and addition thereto, and I think that this society under those conditions will be much more successful than under this radical change which they propose to force upon us.

Dr. Barry. I would like to say a few words in reply to the remarks that have been made by the previous speakers in reference to the Central Dental Association, which is composed of a membership of about one hundred and fifty men. There is no particular reason why the Central Dental Associations should receive any more representation on the Executive Committee of the State Society than a local society having but forty members; and the reason for that is based to a very great extent on the fact that men who are members of the local societies are also members of the State Society, and they receive representation in the State Society from their local society according to their constitution and by-laws.

It has been claimed by some of the previous speakers that this plan of reorganization is a plan of the young men to force their personal views upon the society. This I disclaim. Some of us have been accused of trying to feather our own nests, but we disclaim any attempt at seeking any office. We are working for this reorganization because we feel it is for the betterment of the State of New Jersey.

Dr. Black. Mr. President and Gentlemen, I wish first of all to correct Doctor Stockton's statement that the Illinois Society was ever on the down grade or was ever on the road to Hades. There has not been any year since 1895 that we have not increased in membership. It was unfair in Doctor Stockton to state the present membership of the Illinois Society as compared with its membership in 1904. What was your percentage in 1904? Was it as large as the percentage in Illinois? I would be willing to gamble that it was not. If there is any State in the Union that has always had a live society it is the State of Illinois. I quite agree with Doctor Stockton that the Illinois Society needed reorganization in 1904, but not a bit more than yours does to-day. Doctor Stockton has referred, with a great deal of pride, to the fact that the men of Illinois have taken pleasure in coming and reading the papers before the meeting of this society. Why did you invite those men if we did not have a dandy good society to educate them first? We want you to get a good, big society here that will educate men so that they will be able to come before the Illinois Society and read papers.

Doctor Stockton told you a story that reminded me of a friend of mine from Denver, who, while he was in the city, met with an accident in which he tore his pants and had to buy a new pair. He went into a pretty good clothing store and picked out a pair of pants, and it so happened that under the system of that clothing store they had to cut off three or four different tags; they then got a ticket and pinned these tags on the ticket and took it in with the money before they could deliver the pants. We were in a hurry and I possibly got excited, and maybe I jollied the clerk a little too much; I am not sure which, but he came up to me and said: "Why, this is the plan upon which this store has been run for twenty-five years"; and I said, "Well, sir, it is time you were changing your plan."

Now in regard to what Doctor Baker said about dues, I can only say that our dues are three dollars in the State Society, the same as you have here. While we have more members in our State Society, we also have proportionately more people than you have here. There is not anything that we have done in Illinois that you cannot do in this State. I appreciate the fact that there may be in these two constitutions proposed—there are, probably—some good things in both of them. I think it too bad that the two committees did not get together to-day and agree on the points of difference between them. I want to say again, I do think that you ought to do something now. If you adopt the constitution now, which proposes reorganization, there will be time hereafter to modify that constitution if it is not just right. I

tell you frankly that I do not believe that you will adopt a constitution that is exactly right. I believe that you will have to change it some, but it has been the experience of every other State, so far as I know, that has adopted a similar constitution to this, that the growth of the society has been tremendous, not so much in numbers, as in the advancement of the dental profession of the State.

Another thing; an adoption of the constitution of reorganization, if that should be done, does not necessarily mean that the Central Dental Association would be taken in, as that association now stands; especially, as now it has members from all parts of the State; it does not mean that any local society as it now exists would be taken in. There was not a local society in Illinois in existence when the society was reorganized that was not asked to make some change, either in its constitution or in some way to fit into the State plan. We have in Illinois now two societies which have no affiliation with the State Society—the Northern Illinois Society and the Southern Illinois Society—both of which are fine societies. So that it might work out that the Central Dental Association may not come into the State Society, but there might be a local society in that territory that would be subsidiary to the State Society. I cannot see that it makes much difference whether this whole body elects its Executive Committee, or whether these various local societies elect it. In one case groups of men in different parts of the State would pick out the men to come to this society; in the other case all the men come together and elect their Executive Committee. There is one thing I think ought to be included in the proposed constitution that was sent to me. We have an unwritten law in our society that no man can be a member of our Executive Committee for more than three years; after three years he must lay off for three years before he can be re-elected. That prevents a group of men retaining control of the organization. In the proposed new constitution for this society, which I saw, that provision was not included, though I think it ought to be.

Dr. Watkins. How is the Executive Committee elected in Illinois?

Dr. Black. Our Executive Committee is composed of the President, the Secretary and Treasurer, and of other members—of nine members, three of whom are elected each year to serve for three years, and elected by the general body at its annual meeting. Usually they are nominated by a committee appointed for that purpose.

There is one other point in the Illinois plan I would like to mention,

and that is that the State Society must be able to direct all of the work of the local societies; they must subscribe to the State constitution before they can get a charter; they must lay down rules by which the local societies should elect new members, and if they violate those rules you have the opportunity to correct them or rescind their charter. The State Society must have control over the local organizations.

Dr. Watkins. I would like your private opinion. Do you not consider that the State organization would have greater power over the local societies if the Executive Committee were elected directly by the State organization, rather than to be elected by the local bodies—one local body consisting of ten members, another of forty members and another of a hundred members, and so on—would not the local bodies under those circumstances have greater power over the State Society than the State Society would have over them? In other words, would not the State Society have greater power over the local societies by having the nominations made by ballot and elected here?

Dr. Black. I repeat that I cannot see much difference. If one or two local societies had something to spring on the State Society, you have members from all of the local societies to counteract that. I really do not see that it makes much difference. If I should give my private opinion on that, I would say that I think a split between those two methods would be the best thing. If each local society could be represented at the State convention and the Executive Committee could be elected there, I think that would be the best proposition, though I do not think you would get into any difficulty if you started on any one of them.

EDITORIAL

Co-operation of State Society Officers Needed in the Reorganization of the National Dental Association.

At the meeting of the delegates sent by State Societies to Cleveland to confer with the National Association Committee on Reorganization, several of the delegates asked, "What shall we tell our members when they ask what they will gain by joining the National?"

An intelligent reply to this question must be formulated, because it will be asked many times during the coming summer at State Society meetings.

One delegate presented a point worthy of much thought. He said: "It is not the annual dues so much, that is considered by men contemplating joining the National, but the expense of attending the meetings. The dues are now five dollars per year; we may reduce them to two or three dollars, but that will not lessen the railroad and hotel expenses, which certainly must average as much as fifty dollars for each person in attendance. Now it may be, and undoubtedly is worth fifty dollars to attend a National Association meeting; but many men cannot afford it. These men, therefore, must be shown how it will pay them to join the Association when they cannot expect to attend the meetings."

A reply to those who cannot afford to attend the meetings will serve as an answer to all who will ask, "Why should I join?"

The dental profession would not progress at all, except for the investigators, experimentors, and mechanical and other geniuses within our ranks. These men should have some adequate incentive to record and report their results. In many instances research work is at a pause because the men with the talent for the work lack the necessary funds. Two primary factors therefore are needed; money in some instances, and properly appreciative audiences to which the reports may be made, in practically all instances, for it is but natural that the man who has something to tell should desire to tell it to a representative gathering of his confreres. At present many of the best papers each year are read before local or State societies. Why? Mainly because these meetings attract better audiences.

If the National Association could have a very large membership and a very large treasury, there is no doubt that within a few years the best of everything produced during the year would be presented at the National meetings. Many papers would be reports of work specially done for the association with money provided by the association. With a proper National organization the annual literary and scientific output would be infinitely greater; dentistry would advance more rapidly, more accurately and on lines of greater usefulness. The journal would be the repository of these records, and would be received by all members. It would not be advisable to restrict the distribution of the journal to members only, but the subscription for non-members should be as great as the annual membership fee. Thus every man joining the National could feel that his annual dues helped to make the organization and all its usefulness possible, and he would know that he was receiving in return his share of the useful knowledge garnered annually.

Action of the Northeastern Dental Association.

The Northeastern Dental Association was the first large dental organization to meet since the Cleveland meeting. This Association receives its members from the New England States, and not being a State society cannot come into the National Association as a constituent society. Nevertheless Dr. Gaylord, the retired president of the National, was anxious that the Northeastern

should take some official action indorsing the idea of reorganizing the National along the lines of the American Medical Association. He, therefore, introduced the following resolution which was unanimously adopted.

Resolved; That the Northeastern Dental Association heartily indorses the intention of the National Dental Association to reorganize along the lines of the American Medical Association, and

Resolved; That, if it meets with the approval of the National Dental Association and the State societies of New England, the Northeastern Dental Association will be glad to come into the National Dental Association as the Northeastern Branch of the National Dental Association.

Branches in the National.

This resolution turns attention to the subject of Branches in the National. At present we have the Southern Branch only. At the time of the union of the old American Dental with the then existing Southern Dental, this plan of having branches was necessary in order to persuade the Southern men to come into the National. It was provided, therefore, that there might be Eastern, Southern and Western Branches of the National. The Southern is the only branch that was ever formed. In the reorganization of the National, this question of branches must come up for final settlement. If there is no good purpose satisfied by having branches, then the Southern Branch should be dropped. But if any good can be gained, then such purpose should be plainly drafted into the new scheme of things, in which case the Northeastern Association's offer to come in as a branch could be accepted. This might also afford a solution to the vexed problem of the California State Dental Association and the Southern California Dental Association. It must be remembered that the Southern California Society is as far from San Francisco and the Northern part of the State as the Florida State Dental Society is from Maryland and the Middle States. Possibly, if branches can be made practically useful we might have a Pacific Coast Branch, and a Middle Western Branch. If so we could abandon the present arbitrary rotation of meetings in the so-called East, South and West, and meet, as does the American Medical Association, in all parts of the country. Denver was the most Western point ever reached by our National Association, yet men from Portland and Seattle travelled several hours longer than did the men from New York and Boston.

Duty of State Society Officers.

During the next few months the various State societies will hold meetings and this question of applying for constituent membership in the reorganized National Association will come up. It would be a great loss of time if the question could not be put to conventions ready to make intelligent answer. The most important point to be determined will be "how many members of each State society will be willing to join the National Dental Association" (see editorial in ITEMS OF INTEREST, Sept. 1911).

The Constitution now under consideration tentatively places the annual dues at two dollars, including subscription to the journal. At least one session of each State Society Meeting should be devoted to a full and free discussion of this question of membership in the National and fees for the same. It is too large a topic to be sandwiched in between the regular essays.

Complimentary Banquet to Dr. Wilbur F. Litch

A testimonial banquet will be tendered to Dr. Wilbur F. Litch on the evening of December 16th, 1911, at the Hotel Walton, Philadelphia, Pa., on the occasion of his retirement after fifty years of dental practice.

The committee, representing the Philadelphia Dental Club and the Stomatological Club of Philadelphia, is desirous of having this information reach all of the friends of Dr. Litch, and they make the announcement in this way so that any who do not receive a formal invitation from the committee may have the opportunity to attend.

The subscription price of the banquet is $10, which may be forwarded to the treasurer of the committee, Dr. Edwin T. Darby, 1701 Locust St., Philadelphia, Pa.

Dr. C. T. Stockwell.

During the meeting of the Northeastern Dental Association at Portland, the news of the death of Dr. C. T. Stockwell of Springfield, Mass., was received, and caused a great shock to his many friends who were present. The President, Dr. Kelley, asked the members to rise and stand in meditation for a few moments in respect to Dr. Stockwell.

Dr. Stockwell died October 25th. Death came suddenly as a result of heart disease.

Chester Twichell Stockwell was born September 5, 1841, at Royalston, the son of Emmons and Elvira Wood Stockwell. He was educated in the schools of Royalston and Winchendon and later Eastman's business school at Poughkeepsie, N. Y. From 1863 to 1866 he was in business first in Worcester and then in North Carolina, but in 1867 and 1868 he studied medicine in Fitchburg and afterward matriculated at one of the Philadelphia colleges. He soon left, however, and went into newspaper work, for two years working for the *Iowa State Register* at Des Moines and for other papers. Meanwhile he began the study of dentistry and by 1872 had started to practice for himself.

After three years his health failed and he was obliged to go to Colorado. After a short stay there he moved to Springfield in 1875 and for a year was associated with Dr. Lester Noble. For the next three years he was with Dr. J. Searle Hurlbut and then he set up for himself, first in Bill's block, then in Dickinson's block, and after that in *The Republican* block, where he stayed for years. A dentists' Study Club was formed here in the early '80's and this resulted in the founding of the *New England Journal of Dentistry* in 1882, with Dr. Stockwell as editor.

In 1882, before the New England Dental Society of Boston, Dr. Stockwell read a paper entitled "The Etiology of Dental Caries—Acids or Germs?" The author advocated the latter view. This paper was later read before the Connecticut Valley Dental Society and was published in the *New England Journal* of November, 1882. Dr. A. J. Flanagan, in an address at a banquet to Dr. Stockwell said: "From this paper dated the beginning of the movement which resulted within two

or three years following in the complete overthrow of the older theory of dental decay." The views presented by Dr. Stockwell spread rapidly, and he was invited to read a supplementary paper at Brooklyn the same year.

Dr. Stockwell also published two books, one entitled "The Evolution of Immortality," and the other "New Modes of Thought," which works have given him a high place among American philosophical writers. He was one of the ablest and most eloquent exponents of that special form of monism which during the later 19th century combined with rhapsodic pantheism of the poets with the epoch-making discoveries of modern science which more and more point to the unity of all things.

Dr. Stockwell's life had always been a simple one. Always a lover of nature, he had spent much of his life out of doors and had always been accustomed to take long walks into the countryside with his most intimate friends. As he became weaker and the long years of service began to tell on him, he made it a rule to seek recuperation from his hard labors by outdoor exercise. He treated nature as a friend, always looking at her from a sentimental aspect, and it afforded him an almost physical pain to see any of her beauties desecrated. His life had been a long example of rectitude in conduct, character and action, and many have been helped by coming in contact with him.

Dr. Stockwell was married in 1866 to Sophia Golding Pierce, a native of Royalston and the daughter of Capt. Jonas Pierce, who was then living in Des Moines, where Dr. Stockwell had begun to practice dentistry. Mrs. Stockwell died in August, 1905. They had three sons and one daughter. One son, Louis G., died a few years ago at Burlington, Vt., and of the other two Dr. Herbert E. Stockwell is a physician in Stockbridge, and Arthur E. is in the insurance business in Philadelphia. The daughter, Miss Nella May Stockwell, has made her home with her father. He also leaves three brothers, John and Winfield of Royalston, and Frank, who lives in Nebraska. There are also four grandchildren.

Horatio Meriam, D.M.D.

Died, in Salem, Mass., Aug. 11, 1911, of heart disease, in his 62nd year, Horatio Meriam, D.M.D.

Dr. Horatio Meriam was born in Tewksbury, Mass., March 20, 1849. He was educated in the public schools of that place and Lowell, and then went into the office of Dr. Gerry to prepare himself for his chosen profession.

In 1870 he entered the Dental School of Harvard University, continuing there that year until 1871. He then studied in the office of Dr. Batcheler of Salem, re-entering Harvard again in 1873 and graduating in the class of 1874.

In the fall of 1874 he established an office in Salem where he built up a large practice and practiced continuously for thirty-seven years.

During the years 1884 to 1885 he was chemical instructor at the Harvard Dental School and from 1885 to 1889 instructor in operative dentistry.

At the time of his death Dr. Meriam was the oldest active practitioner in point of practice belonging to the Essex Dental Association. He was a man who combined the practical with the ideal and was highly esteemed and looked up to by all the members of his profession. He was much interested in the welfare and progress of his profession, belonging to many societies.

The Harvard Alumni, the Harvard Odontological Society, American Academy, Massachusetts Dental Society, Essex Dental Association, Lynn Dental Society, New York Stomatology Society, and honorary member of the Great Britain Odontological Society. He was also much interested in civic and social affairs, belonging to the Essex Institute, Mass., Reform Club and Horticultural Society.

He was a great lover of flowers in the study and cultivation of which he passed many of his hours outside his professional duties.

Dr. Meriam was married to Edith Worcester, of Salem, Sept. 12, 1878, who, together with five sons, survives him.

Resolutions.

WHEREAS, That in the demise of Dr. Horatio Meriam, the Almighty in His infinite power and wisdom has seen fit to remove him from our ranks and

WHEREAS, He was a beloved brother member of our Association from its inception, and

WHEREAS, By his death the community and members of our profession have lost an earnest citizen, a zealous and untiring exponent of all the best principles of our profession, always teaching us the practical as well as the ideal side and ever ready to co-operate in any movement for the advancement of the profession, therefore be it

Resolved, That the Essex Dental Association deeply deplores his death and extends its sincere sympathy to the members of his immediate family in their bereavement, and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of this Association and a copy mailed to his family.

Committee on Resolutions:

F. E. JEFFREY, D.M.D., Pres.
F. E. RICE, D.D.S., Sec'y.

E. O. RICHARDS, D.D.S.
W. G. FANNING, D.D.S.
M. C. SMITH, M.D., D.D.S., D.M.D.

Jesse Robbins, D.M.D.

Died, in Salem, Mass., July 27, 1911, of heart disease, in his 67th year, Jesse Robbins, D.M.D.

In the demise of Dr. Jesse Robbins, one of the oldest and most highly esteemed members of our Association, as well as one of the oldest practitioners in New England, the Almighty in his infinite wisdom has removed from our ranks a beloved brother member to other fields beyond, after a career of untiring interest in everything pertaining to his profession.

Dr. Jesse Robbins was born in West Bromwich, England, on Feb. 28, 1845. After having come to this country he studied dentistry in the dental department of Harvard University, whence he was graduated in 1871.

He established himself in Salem, Mass., and up to within the last few years has there successfully practiced his chosen profession. His interest in professional and civic affairs is evinced by his membership in the original staff of the Salem Hospital and in the Essex Dental Association, of which he became a member soon after its formation.

He was married to Elizabeth Gibson, of Salem, Mass., in 1869, who, together with one son, Fred. G. Robbins, also a dentist of Boston, survives him.

Resolutions.

WHEREAS, That in the demise of Dr. Jesse Robbins, the Almighty in His infinite power and wisdom has seen fit to remove from our ranks a beloved and highly esteemed brother member, and

WHEREAS, He has been a member of the Essex Dental Association since Nov. 17, 1910, and

WHEREAS, By his death the community and members of our profession have lost an earnest citizen, an eminent and highly esteemed member, who, through his career has always lived up to the best tenets of his profession, its welfare and progress, therefore be it

Resolved, That the Essex Dental Association deeply deplores his

death and extends its sincere sympathy to the members of his immediate family in their bereavement, and be it further

Resolved, That a copy of these resolutions be spread upon the minutes of this Association, and a copy mailed to his wife and son.

Committee on Resolutions:

F. E. JEFFREY, D.M.D., Pres.
F. E. RICE, D.D.S., Sec'y.

E. O. RICHARDS, D.D.S.
W. G. FANNING, D.D.S.
M. C. SMITH, JR., D.D.S.

Dr. Ermina P. Roe.

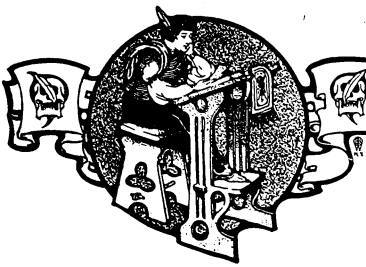
Mrs. Ermina Palmer Roe passed away after a six weeks' illness on Monday, October 30th, at her home in Main Street. She was born in Nyack, September 23, 1850, and was united in marriage to her husband, Dr. Townsend V. Roe, November 3, 1871. She studied dentistry and commenced practicing at Warwick, N. Y., in December, 1877. Mr. and Mrs. Roe came to Tarrytown in the spring of 1882, and as partners under the firm name of T. V. and E. P. Roe, opened an office. Mrs. Roe continued in practice until within two years of her death.

Mrs. Roe was well known in yachting circles, being an enthusiast in this most enjoyable of pastimes. In 1890 she was granted a license by the United States government to navigate steam vessels of one hundred tons. For several years she piloted one of Dr. Roe's steam yachts in New York harbor. She was one of the first women to obtain a pilot license, and it was considered quite a wonder at the time. Since then a number of women have been licensed as pilots.

During the Richmond-Sheffield crown litigation, Mrs. Roe was one of the best witnesses for the dental profession, as she exhibited specimens of her gold crown and bridgework which ante-dated the crown patent by some ten years.

Dr. and Mrs. Roe were married about forty years ago. During all this period their lives were beautiful examples of love and devotion. Mrs. Roe was one of the most kindly women. Her friends were legion. Never have words of sympathy been so fully expressed as on her demise. She was of large heart, generous beyond measure, ever ready to help in any cause, in word or action. Her sunny disposition endeared her to the many, and her deeds are countless in the name of charity, and that which brought cheer. A fine type of the true woman, Mrs. Roe will be sincerely missed in the many kindly offices.

There survive a daughter, Mrs. R. B. Green, a son, Townsend V. Roe, Jr., and two grandchildren, Nellie and Emma Weeks.



CORRESPONDENCE

State Militia Dental Corps.

Nov. 6th, 1911.

Editor ITEMS OF INTEREST:

I enclose you copy of the decision of the Chief, Division of Militia Affairs, War Department, Washington, D. C., regarding the establishment of a Dental Corps in the Organized Militia of the United States, for the information of the dental profession.

It is the opinion of that office, that under the Act of March 3, 1911, the members of the State Militia Dental Corps, whenever established, shall be at once commissioned as first lieutenants in that organization. That the contract feature of the Act of March 3, 1911, does not apply to militia organizations.

That the question of the contract service should not be raised by members of the dental profession who may desire to become members of the State Militia Dental Corps of any of the United States.

That they should assume it to be their right to be commissioned as first lieutenants of the dental corps.

Therefore, I beg of those members of the dental profession who may desire to become members of the State Militia Dental Corps and attached to its medical department, under no circumstance to either refer to said contract service as is contained in the law governing the regular army, or to accept any position other than a commissioned first lieutenant, if referred to by any authority of the State or militia organization. It is absolutely necessary for the welfare of the dental profession throughout the country, its progress and standing, that its members conform to this condition.

Should the question be raised by other than dentists, then will be time to demand an official ruling of the Judge-Advocate General of the Army for final settlement of the question. In my opinion, based upon conditions applying to other officers in the militia organization of the United States, the question of contract service will not be raised, but to prepare the members to confront the situation should it arise, I have written this warning.

Remember that what applies to one State must apply to all in its organizations of militia and be governed accordingly that the best interests of the dental profession may be guarded and its social standing upheld by the members thereof.

Respectfully submitted,

EMORY A. BRYANT,
Washington, D. C.

(COPY.)

BULLETIN OF MILITIA NOTES,
ISSUED BY THE DIVISION OF MILITIA AFFAIRS, WAR DEPARTMENT.
For the Quarter ending December 31st, 1911.

November 1, 1911.

Page 10.

34. Section 3 of the Militia Law requires the Organized Militia to conform to the organization, armament and discipline of the Regular Army. The Act of March 3rd, 1911, authorizes a Dental Corps to be attached to the Medical Department, prescribing certain limitations as to numbers of this corps. The Dental Corps is a part of the Regular Establishment, and in the opinion of this office the Organized Militia would be authorized to attach to its Medical Department a Dental Corps in conformity with the proportion prescribed by the Act of March 3, 1911, and the officers of such corps, when on duty, would be entitled to pay out of the Federal funds allotted to the State.

P. K. EVANS,
Brigadier General,
Chief, Division of Militia Affairs."

National Guard Dentists

If the members of the National Guard fail to have their teeth cared for hereafter it will be simply because they do not care to divert to the dentist a part of the money allotted for their support. A ruling by Brig.-Gen. Evans, Chief of the Division of Militia Affairs, just issued, sanctions the attachment of a dental corps to militia organizations in the same proportion as they exist in the Regular Army.—*Army and Navy Register.*

SOCIETY ANNOUNCEMENTS

National Dental Association, Washington, D. C., September 10, 11, 12, 13, 1912. Secretary, Dr. Homer C. Brown, 185 E. State St., Columbus, O.

Canadian Dental Society and Ontario Dental Association, union meeting, Hamilton, Ont., June 3, 4, 5, 6, 1912. Secretary, J. A. Cameron Hoggan, Federal Bldg., Hamilton, Canada.

Institute of Dental Pedagogics, Chicago, Ill., January 24, 25, 26, 1912. Secretary, Fred. W. Gethro, 917 Marshall Field & Co. Bldg., Chicago, Ill.

American Society of Orthodontists, Chicago, Ill., July 5, 6, 7, 1912. Secretary, Dr. F. C. Kemple, 576 Fifth Ave., New York.

Third Australian Dental Congress.

The Third Australian Dental Congress will be held in Brisbane, Queensland, July 8th to 12th inclusive, 1912. The committee will be pleased to welcome any dentist who may contemplate making a holiday abroad and visits us at Congress time.

Arnold E. Gibson, Honorable Secretary.
290 Edward St., Brisbane, Queensland.

Chicago Dental Society Celebration, Jan. 22 and 23, 1912. Institute of Dental Pedagogics, Jan. 24, 25 and 26, 1912.

The Chicago Dental Society will hold its celebration on Monday and Tuesday, and the Institute of Dental Pedagogics on Wednesday, Thursday and Friday, Jan. 22 to 26, 1912. There will be sessions mornings, afternoons and evenings, and a large banquet on Wednesday evening, given by the three dental schools of Chicago. The speaker for this occasion has not been definitely decided upon, but he will be a man of national

reputation and the address will be on some subject outside of dentistry.

The officers and committeemen of the two societies are making every effort to make these meetings the greatest ever held in our city. We are sure that the programs are of unusual merit. Clinicians from various parts of the country have been selected with great care and we have every reason to believe that this will be one of the most complete clinics we have ever given.

An outline of the program is appended.

Very truly yours,
FRED. W. GETHRO, Sec.-Treas.

OUTLINE PROGRAM
CHICAGO DENTAL SOCIETY.

Monday, January 22nd, 1912. (All day.)
Manufacturers' Exhibit.
Monday evening, 8 o'clock—
"Comparative Dental Anatomy," *Dr. William Bebb.*
Tuesday, January 23rd. (All day.)
Clinic-College of Dentistry, University of Illinois.
Tuesday evening, 8 o'clock—
Paper, "Salivary Calculus," *Dr. G. V. Black.*

INSTITUTE OF DENTAL PEDAGOGICS.

Wednesday, January 24th, 9 o'clock A. M.
Address of Welcome, *The Mayor of Chicago.*
President's Address, *Dr. Donald M. Gallie.*
Report of Master of Exhibits.
Report of Commission on Text Books.
Visit Field Museum, 2 to 5 o'clock.
Paper, "Teaching of Comparative Dental Anatomy,"
Dr. Wm. Bebb.
Wednesday evening, 8 o'clock.
Banquet (Hotel not selected.)
Address by (Prominent speaker of national reputation.)
Thursday, January 25th, 9:30 to 11:30 A. M.
Visit Northwestern University Dental School.
Luncheon, 11:30 to 12:00 o'clock.
Automobiles to West Side.
Visit Chicago College of Dental Surgery, 1:00 to 3:00 o'clock.
Visit College of Dentistry, University of Illinois, 3 to 5 o'clock.

Thursday evening, 8 o'clock—

Paper, "The Teaching of Dental Histology," *Dr. Fred. B. Noyes.*

Friday, January 26th, 9 o'clock.

"The Teaching of Applied Physics and Chemistry,"

Dr. Marcus L. Ward.

Report of Commission on Nomenclature.

Report of Dental Index Bureau.

1:30 o'clock—

"Teaching of Clinical Pathology," *Dr. H. T. Smith.*

The G. V. Black Dental Club.

The G. V. Black Dental Club will hold a mid-winter clinic in St. Paul during February, 1912. Definite dates will be given later.

DR. R. B. WILSON, Secretary.

American National Bank Bldg., St. Paul, Minn.

California State Board of Dental Examiners.

The California State Board of Dental Examiners will hold its next meeting in San Francisco, beginning on December 4, 1911. This meeting is for the purpose of examining applicants for a license to practice dentistry in California.

C. A. HERRICK, Secretary.

401 Whitney Bldg., San Francisco, Cal.

Items of Interest

A Monthly . . . Magazine of Dental Art, Science and Literature . . .

Published by Consolidated Dental Manufacturing Co. 130, 132, 134 Washington Place; 187, 189, 191 West 4th Street, New York . .

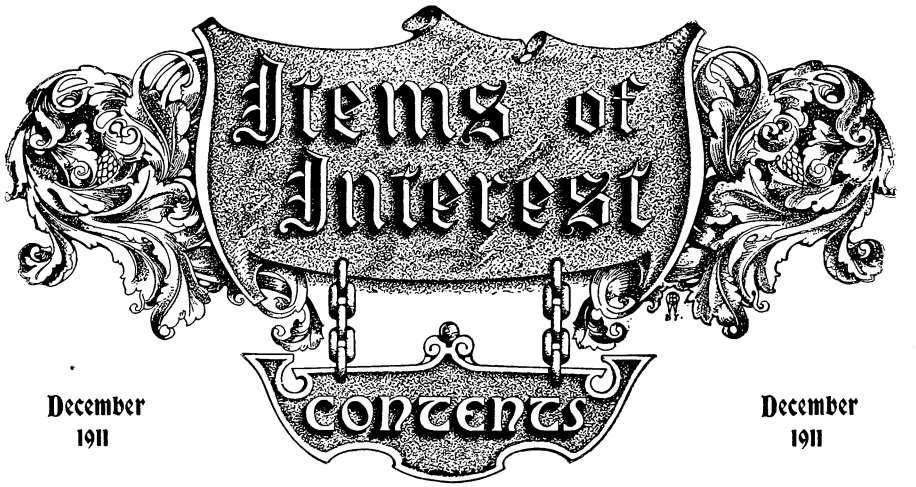
Subscription, $1.00 per year

Foreign U. P. U. Countries $1.75
Canada $1.40 per year

Entered as second class matter at the New York, N. Y., post office under the Act of March 3, 1879

Vol. XXXIII. No. 12
December
1911

R. Ottolengui,
M.D.S., D.D.S., LL.D.
Editor
30 West 40th St.
New York



December 1911

Exclusive Contributions

Orthodontia

Prosthodontia

Society Papers

Society Discussions

CONTENTS—Continued

Editorial

In Memoriam

Correspondence

Society Announcements

Subscription, $1.00 per year, in advance, to United States, Mexico, Cuba, Panama and other American territorial possessions. Canada, $1.40. Other countries, $1.75. Single copies of this issue, 15 cents (Domestic).

Subscriptions received at any time, to date from January or July. Orders taken by all leading dental dealers. Advertising rates made known on application. Remittances preferred by registered letter, postal money-order, or bank draft.

Notification of change in address should be made on or before the 10th of the month, in order to have change made in time for the following month's issue.

Address all business communications to Consolidated Dental Mfg. Co., Publishers, Nos. 130, 132, 134 Washington Place; 187, 189, 191 West Fourth St., New York.

Communications for publication department should be addressed to the editor, R. Ottolengui, M.D.S., D.D.S., LL.D., 80 West 40th St., New York.

Premier Appointment Book

Evening 191
NAME SERVICE RENDERED

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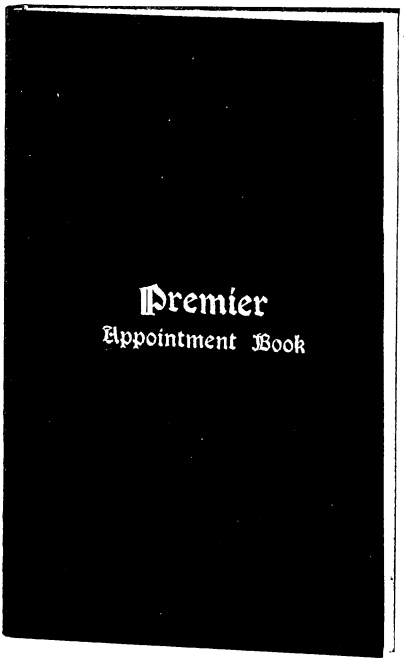
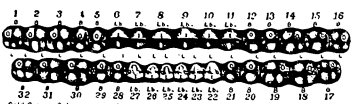
Illustrations are half-size



Pocket size—4 x 6¼; 248 pages; special section for evening appointments on colored paper; pages are not dated, and therefore not wasted if not used; wide space between lines; diagram on every page; improved code of abbreviations to show services rendered, Sundays included; bound in black limp leather with gold-leaf lettering; pages are gilt edged. Price 65c. each.



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This illustration shows two opposite pages,—half size

CONSOLIDATED DENTAL MFG. CO.

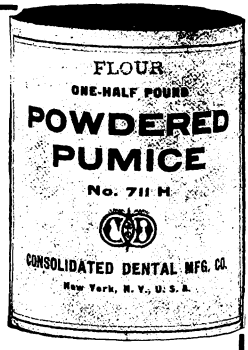
Speedwell Lubricating Oil

For Handpieces, engine transmission, high speed instruments, watches, electrical, scientific and other accurate apparatus.

This oil lubricates thoroughly without gumming or clogging. It is the safest to use if you want to obtain the best running qualities in your high-speed apparatus.

Price per Bottle

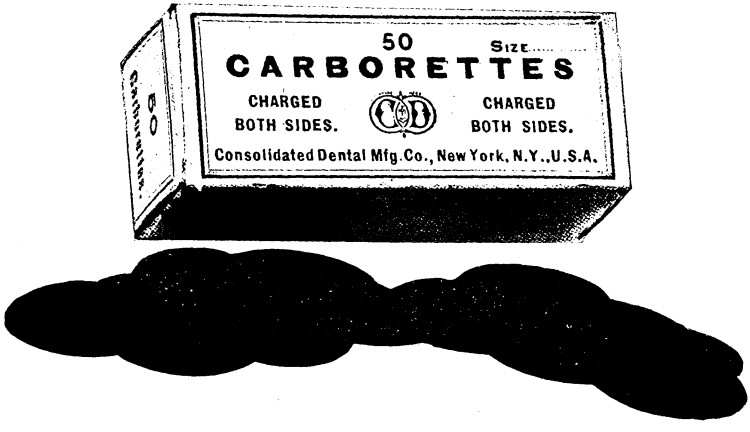
15c



Selected pumice, ground again and again and bolted through many fine cloths, pulverizing it until every trace of grit is removed, but the inherent sharpness remains, making it an effective cleansing agent. Whether used at the chair or by your patients at home, this Flour of Pumice will cleanse most efficiently without destroying the cementum. It is a powerful aid in the prophylactic campaign.

In ½ lb. boxes - 15c.

Consolidated Dental Mfg. Co.

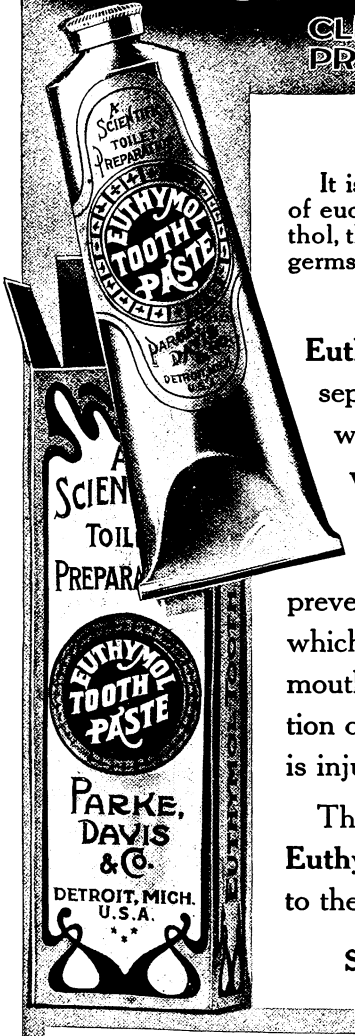


Thin Separating Disks charged with Carborundum on both sides
An excellent disk at a low price
In boxes of 50 each—Price, $1.00 per hundred

Consolidated Dental Mfg. Co.

EUTHYMOL TOOTH PASTE

CLEANSES WHITENS AND PRESERVES THE TEETH



What is Euthymol?

It is a compound of six active antiseptics: oil of eucalyptus, oil of gaultheria, boric acid, menthol, thymol, and benzoic acid (natural). It kills germs, yet is perfectly harmless to the individual.

✦ ✦ ✦

Euthymol Tooth Paste contains the antiseptic ingredients of Euthymol, together with harmless detergents. It cleanses, whitens and preserves the teeth; checks the fermentation of food that has accumulated in and between them; prevents the formation of harmful acids which corrode the enamel. It purifies the mouth and imparts to it a delightful sensation of freshness. It contains nothing that is injurious to the teeth or gums.

Thousands of dental practitioners use **Euthymol Tooth Paste** and recommend it to their patients.

Supplied by Druggists Everywhere.

PARKE, DAVIS & COMPANY

LABORATORIES: Detroit, Mich., U.S.A.; Walkerville, Ont.; Hounslow, Eng.

BRANCHES: New York, Chicago, St. Louis, Boston, Baltimore, New Orleans, Kansas City, Minneapolis, Seattle, U.S.A.; London, Eng.; Montreal, Que.; Sydney, N.S.W.; Bombay, India; Tokio, Japan; St. Petersburg, Russia; Buenos Aires, Argentina.

THE FULL PORCELAIN CUSP

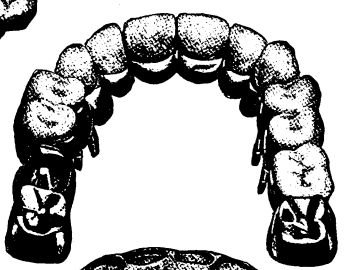
OF THE

GosLee

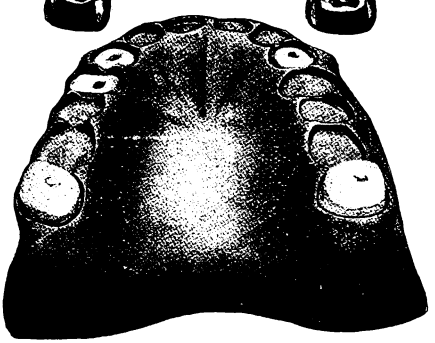
INTERCHANGEABLE TOOTH

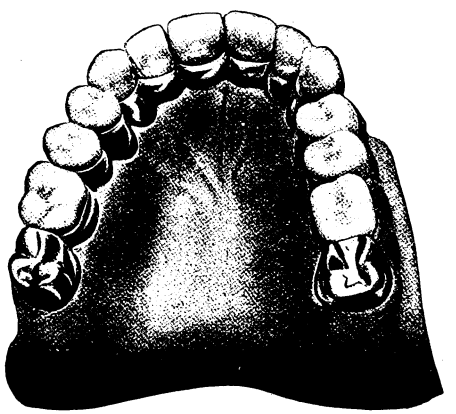
(*Patented*)

FOR CROWN AND BRIDGEWORK

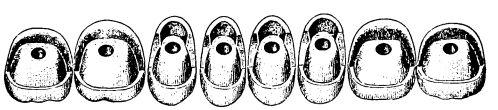


NOW ENABLES YOU TO FURNISH PATIENTS WITH THE MOST RATIONAL BRIDGEWORK EVER MADE. : : :





Bicuspids and Molars are Ready Now.



PRICES

Goslee Tooth without pin	- each	-	**$ .35**
Goslee Tooth without pin (per case of 100)		-	**30.00**
Clasp gold pin - - -	each	-	**.30**
Platinum Iridium pin - -			**prices fluctuate**

Send for Booklet "A," illustrating molds, and containing valuable information on this factor of the Newer Dentistry.

CONSOLIDATED DENTAL MFG. CO.

130 Washington Place - New York, N. Y.

Cores of Solid Vulcanite

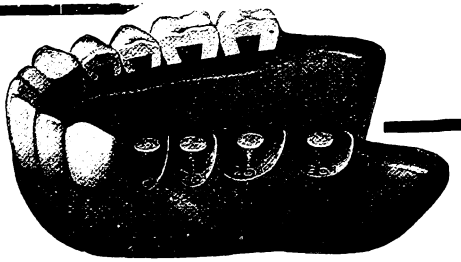


Illustration showing plate made of Consolidated Combination Set. Note the cores of solid vulcanite which form the only logical and permanent attachment for diatoric teeth.

CONSOLIDATED Diatoric Teeth are securely attached to the plate by a wedge-shape core of solid vulcanite. This attachment is a part of the plate itself and is as strong as the vulcanite plate.

¶ This wedge-shape attachment is the only logical, permanent and rigid form of attachment for a diatoric tooth. By the test of time and the experience of thousands of dentists

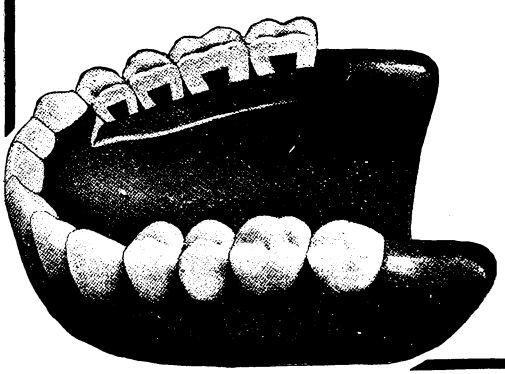
Consolidated Diatoric Teeth

have been proved correct in design and unfailing in strength.

¶ Consolidated Diatoric Teeth are made of the famous Consolidated Porcelain, possessing strength, translucency without transparency and

THAT LIVE TOOTH APPEARANCE

In Combination Sets { 6 Platinum Pin Teeth / 8 Diatoric Teeth . . } . . $1.46



Note how firmly the diatoric teeth are locked to the plate by the wedge-shape attachment of vulcanite.

For sale by all leading dental dealers

CONSOLIDATED

DENTAL MFG. CO.

The Grip of Platinum

With platinum at an extraordinary high price with no indication of a reduction, it has been the hope of dentists, tooth manufacturers and others interested, to secure a suitable and less costly metal for the pins of porcelain teeth.

There have been many experiments with base-metal pin teeth, and many brands of such teeth have come and gone. There have been so many failures that this class of teeth has been more or less under suspicion, and the good have suffered for the bad.

But There Is One Good Kind

and that is

METALITE

METALITE Teeth are made of the famous "Consolidated" porcelain, with **METALITE** pins *baked into the tooth.*

Metalite Teeth have been used extensively for over six years. They have gone through a practical test in the human mouth for all these years, and they have come through it a success.

NOW WE ARE READY TO ADVERTISE THE FACT AND LET EVERY DENTIST KNOW that he can escape the grip of platinum.

Other brands were advertised first, and came through the practical test a failure, at the EXPENSE OF DENTISTS AND PATIENTS.

You are SAFE in our representations because we have experimented, tested and proved for so many years at OUR OWN EXPENSE, that **METALITE** Teeth ARE A SUCCESS.

How to Avoid It

The illustration of the cross section shows how firmly and everlastingly the pins are incorporated into the porcelain. This security of attachment, and the blending of the metal into the porcelain, is the distinctive feature of the superiority of **METALITE** over all other kinds of base-metal teeth.

The impossibility of eliminating the air space between the pin and the porcelain is the cause of the failure of so many base-metal teeth. This vital feature has led to many new and different ways of attaching the pin and all have failed. The only successful pin is the baked-in pin, just as all platinum pins are attached; and the baked-in pin of **METALITE** Teeth is as firm, strong and permanent as any platinum pin.

METALITE Teeth are, therefore, in a class of their own, and they are the only successful teeth which can be used for vulcanite work in place of platinum-pin teeth.

PRICE

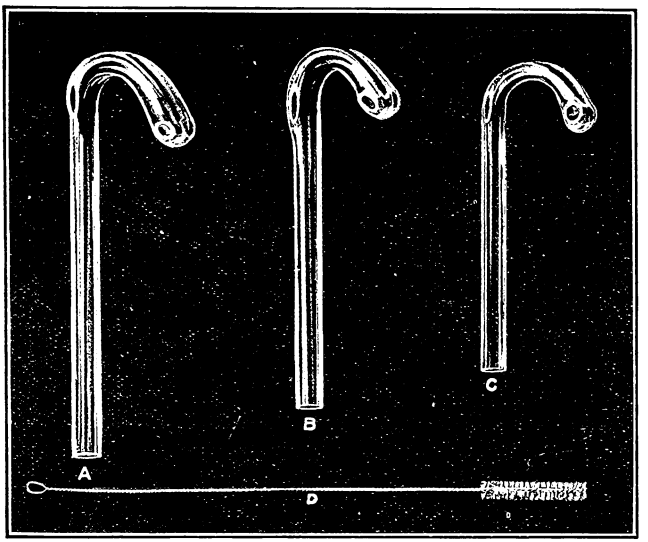
Per set of 14 - - $1.00

Consolidated C&B Dental Mfg. Co.

New York **Chicago** **Cleveland**
Boston **Detroit** **Philadelphia**

De Witt Saliva Ejector

Simple, Effective and Strong



This Ejector overcomes the drawing-in of the soft tissues of the mouth, so disagreeable to the patient and annoying to the operator.

It cannot become dammed, clogged or air-bound.

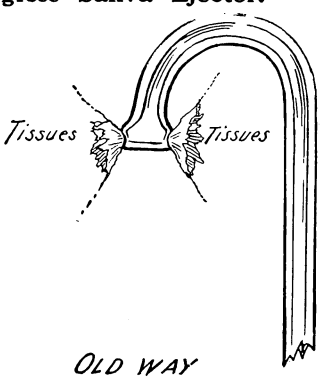
The large holes in the tip will carry off thick, soapy saliva, or the foam from the spray bottle, as easily as they eject water.

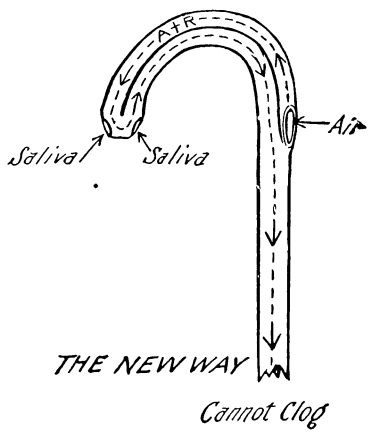
The most modern and improved fountain spittoon is equipped with a De Witt Clogless Saliva Ejector. All Clark spittoons will hereafter be equipped with a De Witt Clogless Saliva Ejector.

There are three sizes, to conform to the varying depths of different mouths.

By selecting the right size, the weight is borne by the teeth preventing pressure on the soft tissues.

It is the only Saliva Ejector that can be thoroughly cleansed.





PRICES

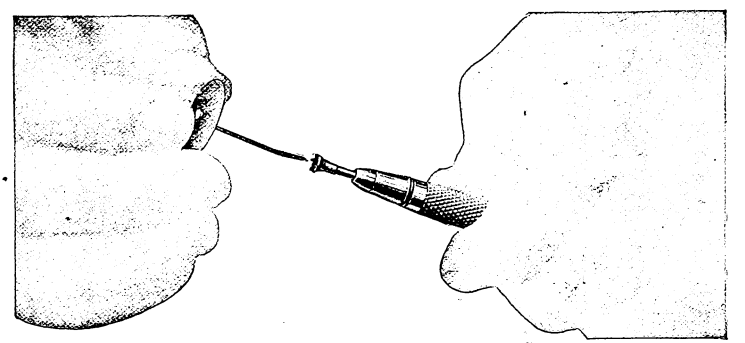
Clear Glass Tubes—Any Size, $ .25 each, $1.25 per ½ doz., $2.50 per doz.
Metal Tubes " " 1.50 each
Brush for cleaning tubes - .15 each

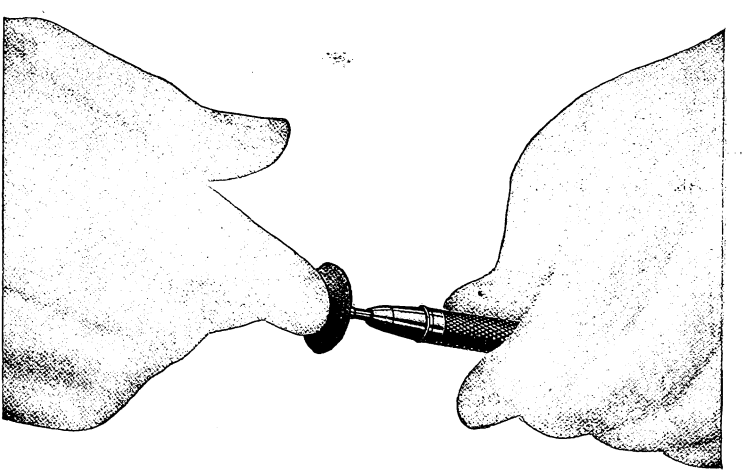
For sale by all leading dental dealers and by our retail depots

Consolidated Dental Mfg. Co.

Ajax Mandrel

Made in the Consolidated Way





Just push the pin down and the disk is locked securely. It grips the disk. It holds it tight. The pin locks itself when it is pushed down. Simple, quick and easy. It can't come off. If you use any other style of Mandrel you can readily see how superior and much more convenient the Ajax Mandrel is.

Price—40c. each

CONSOLIDATED DENTAL MFG. CO.

How Do You Remove a Gold Crown?

DO you try to remove a gold crown from an aching tooth by hacking and cutting at it with a lancet or some other improvised instrument, and thereby increase your patient's suffering? How much more thoughtful and progressive it would be to

Use the Consolidated Crown Slitter

With it you can remove the crown *painlessly*—almost without the patient's knowledge.

By simply compressing the handles the crown is slit cleanly. It will slit a crown on any tooth, no matter where located, and you can cut the crown in the front, back or side, as you please.

The Consolidated Crown Slitter is an aid in building a practice. An investment of $3.50 for a Crown Slitter will pay you large dividends in satisfied patients.

Get a Consolidated Crown Slitter to-day. To-morrow you may need it. Sold by leading dental dealers everywhere.

Consolidated CCD Dental Mfg. Co.

Your Patients Know

PERHAPS you can't tell by looking at them why Realization Burs are better than others. You can't see the quality of the steel of

Realization Burs

But your patients know. They can tell the difference between the smooth, quiet, cool cutting properties of Realization Burs, and the chattering, hot grinding of other burs. You know how far this goes towards pleasing a patient.

Since Realization Burs are easy on your patients, you can make thorough cavity preparation without fatigue, and when you thus prepare a cavity properly your fillings will stay in place, and you gain satisfied patients.

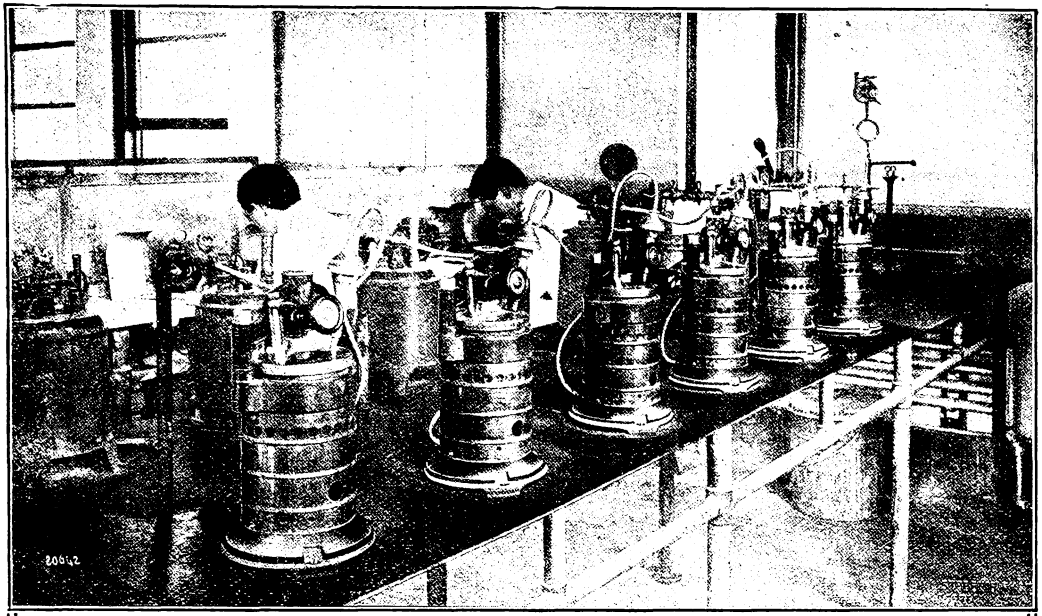
Isn't this the best way to build a practice?

Realization Burs are sold by leading dental dealers.

$ 1.00 Per Doz.
5.50 Half Gro.
10.00 Gross

GET THE BLUE SEALED PACKAGE

Consolidated Dental Mfg. Co.



Consolidated Vulcanizers at Tufts College

Six Consolidated Vulcanizers have been purchased by Tufts College for student use, and the Harvard University Dental School has also adopted this Vulcanizer.

With unlimited choice these colleges selected a Consolidated Vulcanizer.

Wherever efficiency, safety and simplicity are desired you will find

The Consolidated Vulcanizer

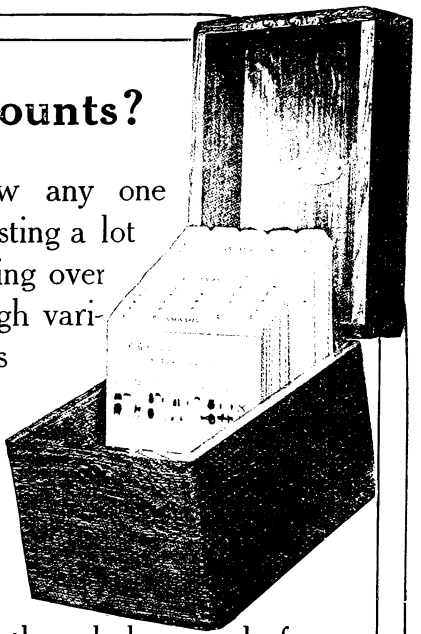
Its correct cover design making it absolutely steam tight; its heavy seamless drawn copper pot and drop forgings producing a ten-fold margin of safety; its easy operation without wrench or other tools are factors which appeal to every thinking dentist. Above all it is

Made in the Consolidated Way

Send for our Vulcanizer Booklet

Consolidated Dental Mfg. Co.

How Are Your Accounts?



CAN you tell exactly how any one account stands without wasting a lot of valuable time in thumbing over dead accounts and hunting through various books? If you can't, then it's time you used

The Triggs' System of Dental Charts

With this system, one card gives the whole record of a patient's account. The date and character of any operation, the time expended and the fee charged are revealed by a glance at one card. The amount of money paid is entered upon the same card. Nothing could be simpler or easier. Compare the directness of this system with the old fashioned way of making an entry in one book, transferring it to another and then having to look in an index to find the account.

The Triggs' System simplifies the keeping of accounts. It is so easy to jot down a record on the card where it belongs that there will be no temptation to defer entering it until some future time. When you use the Triggs' System you are not at the mercy of your memory.

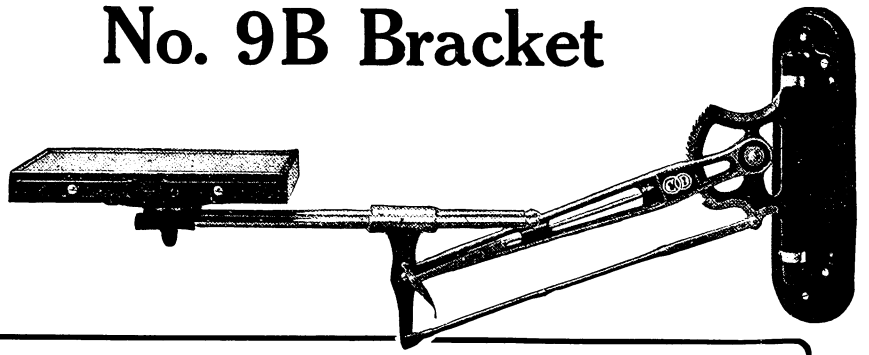
PRICES:

Complete outfit in metal case containing 300 lithographed charts, 15 Cash Acct. cards, 1 set of 3 indexes and 1 pad of examination blanks . $5.00

Charts	per hundred	$ .75
Indexes	each	.50
Examination blanks	per pad	.15

Consolidated Dental Mfg. Co.

No. 9B Bracket



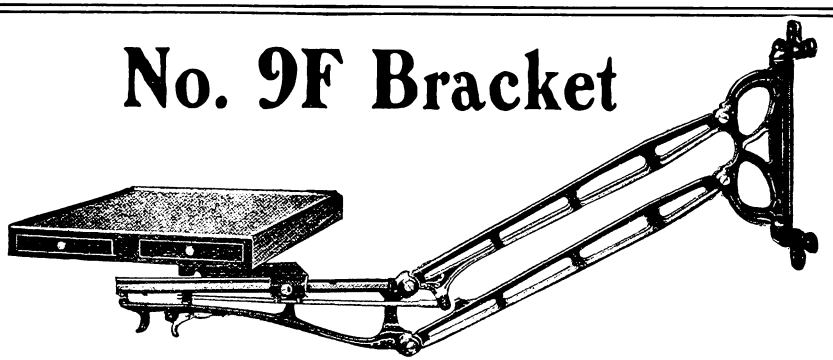
This bracket will improve the appearance of any dentist's outfit. With its substantial wall board, its smooth, glossy enamel and its heavy nickel plate, this bracket is sure to make a favorable impression on those who see it in your office. Its utility, easy adjustment and wide range will please and assist you.

Supplied in five finishes:

No. 9A, nickel plate	$12.00
No. 9B, black enamel	12.00
No. 9C, antique copper	12.00
No. 9E, white enamel	14.00
No. 9K, blue enamel	14.00

Consolidated Dental Mfg. Co.

No. 9F Bracket



This bracket is a decided favorite with many dentists. It can be raised or lowered with one hand and has a wide range—both vertical and horizontal.

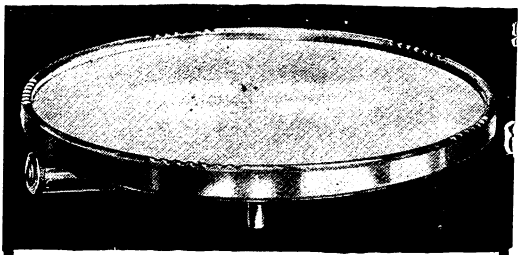
In addition to possessing those mechanical qualities which make this bracket so popular, Consolidated No. 9F Brackets are characterized by a surpassing richness of finish. The enamel is hard, smooth and will wear well because it has been well baked. The enamel is relieved by pleasing gold decorations.

Made in three finishes—black, white and blue enamel.

PRICES

No. 9F, black enamel	$10.00
No. 9G, white enamel	12.00
No. 9H, blue enamel	12.00

Consolidated Dental Mfg. Co.



THE CONSOLIDATED ASEPTIC BRACKET TABLE

with its snowy white top and heavily nickel-plated rim, is so clean looking that patients will think well of your discriminating judgment in having a table which looks and is aseptic. They will appreciate the fact that your table is sterilized as well as your instruments.

Ask your dealer to show you this handsome, convenient table.

PRICES

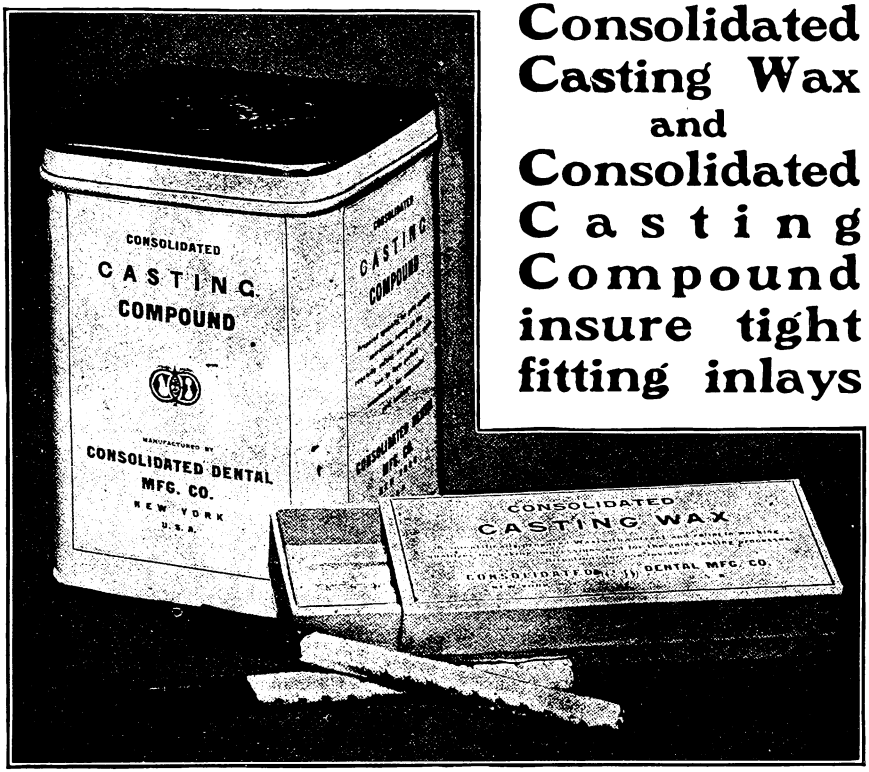
Consolidated Aseptic Bracket Table - - - - -	$10.00
With Round Metal Alcohol Lamp and Special Cotton Receptacle - - -	12.50

Consolidated

Dental Mfg. Co.

As Important as the Casting Machine

Your Casting Wax and Compound are vital to the success of your gold inlay



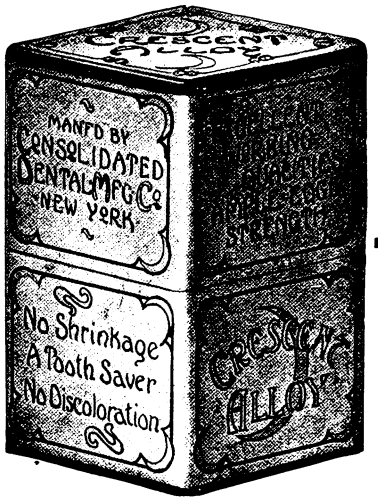
Consolidated Casting Wax and Consolidated Casting Compound insure tight fitting inlays

Consolidated Casting Wax is pure, hard, and of a smooth, even grain. It breaks with a clean, sharp fracture, softens readily at a comparatively low temperature, but is hard at the temperature of the mouth. When chilled and removed from the cavity it shows every minute edge clear and firm, and is an exact model.

Consolidated Casting Compound will preserve every detail of the wax. It does not shrink nor cause distortion of the model. It is prepared to withstand all the phenomena of gold casting, and it will stand the heat of the blowpipe without crumbling. At all leading dental dealers.

Consolidated Casting Wax in Sticks, 50c. per box
Consolidated Casting Wax in Cones, 50c. per box
Consolidated Casting Compound, 50c. per can

Consolidated Dental Mfg. Co.



TO make fillings that will stay in place and retain their silvery white appearance

Use Crescent Alloy

It is made of the purest metals obtainable, scientifically blended, and is rich in silver. It has good edge strength and is excellent for contours. It is a tooth saver of highest rank.

¶ Put up in ½ and 1 ounce packages, and in 5 ounce glass stoppered bottles.

$ 1.50	-	per ounce
7.00	for	5 ounces
13.50	"	10 "
25.00	"	20 "

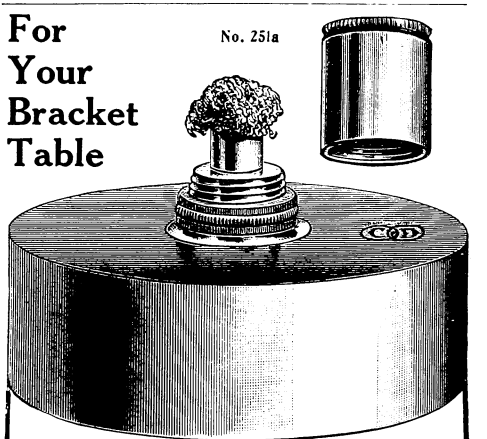
CONSOLIDATED DENTAL MFG. CO.

BRIGHT, TIGHT AMALGAM FILLINGS

To insure satisfactory Amalgam Fillings use Consolidated Chemically Pure Mercury. The working qualities of the best alloy will be spoiled by impure mercury. Consolidated Mercury is refined, and dirt and dross are removed. Your Amalgam Fillings will not discolor or shrink if you use it. It helps you to make lasting fillings. Don't take chances with drug store mercury.

In 4-oz. non-leaking holder....$ .50
In 1 lb. jugs 1.50

For Your Bracket Table



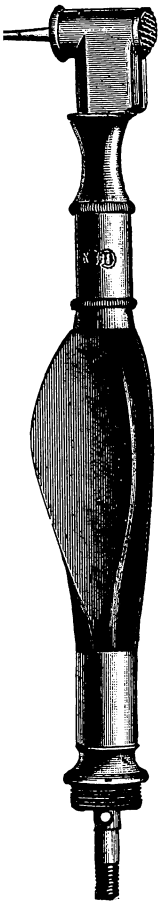
Round Metal Alcohol Lamp

¶ The flat shape which prevents upsetting is one of the attractive features of this lamp. It is ***"Made in the Consolidated Way"*** and is one of the best lamps of its kind for bracket table use.

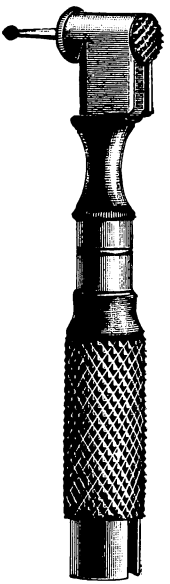
Nickel-plated Price, each $1.00

Consolidated Right Angles

Save Your Time, Temper and Fingernails



Style A



Style B

The Consolidated Right Angles have the famous sliding bur catch. A slight pressure of the finger slides this catch up or down. The bur is thus easily locked or released by the most simple operation ever used in a handpiece. It is the most efficient locking device possible.

The bur in a Consolidated Right Angle does not wobble and it cannot fall out. It is inserted in the head, the catch pushed up, and immediately the handpiece is ready for use.

Consolidated Right Angles enable you to change burs quickly without breaking your fingernails and without causing you to suffer exasperating delays at critical times.

Consolidated Right Angles are made in two styles.

PRICES

Style A—Right-Angle Handpiece, with collar attached for Slip-Joint	**$6.00**
—Right-Angle Hand-piece, without collar for Slip-Joint	**5.00**
—Collar	**1.00**
Style B—Right-Angle Attachment to fit over Consolidated or No. 7 Handpieces	**4.00**

Consolidated Dental Mfg. Co.

New York	Boston	Cleveland
Chicago	Detroit	Philadelphia

Consolidated Handpiece

A few reasons why it surpasses all others

One-piece spindle.

No oil covered sections exposed.

Automatic locking chuck for shanks of various sizes.

Rigid and long steady bearings in contrast to the old fashioned sectional and loose-jointed spindle.

Watch-work construction.

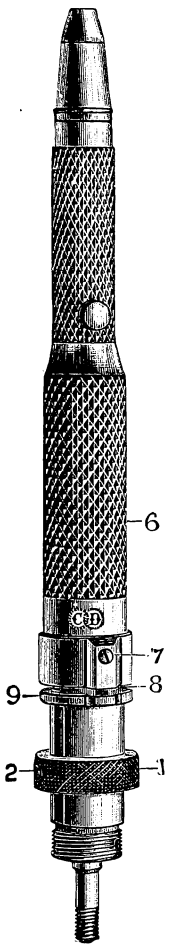


Fig. 1

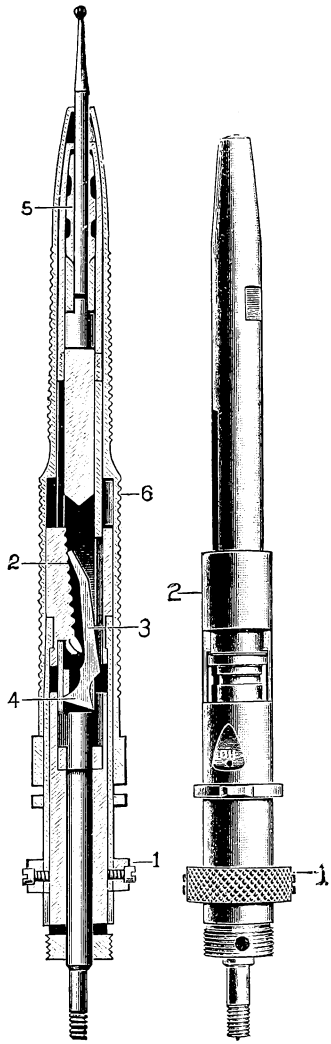


Fig. 2

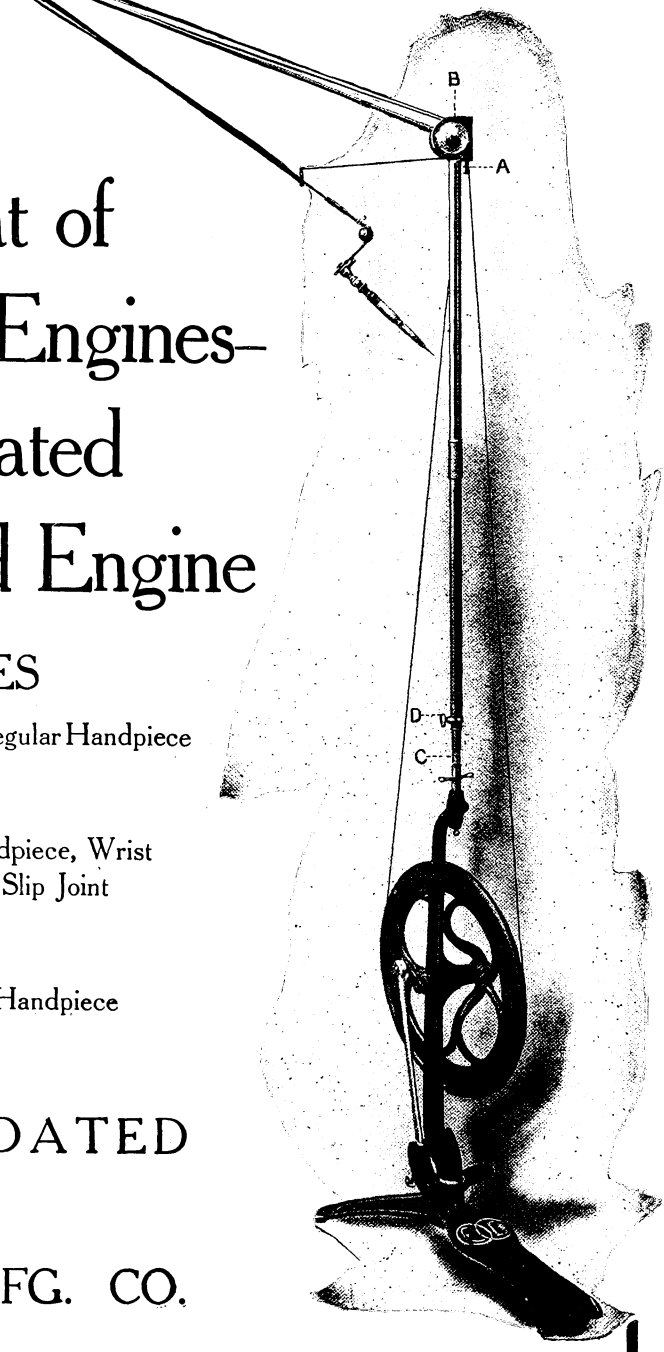
See pages 55-60 of Consolidated Dental Mfg. Co.'s Catalog for further information and illustration of handpieces.

FOR SALE AT ALL LEADING DENTAL DEPOTS

Consolidated Dental Mfg. Co.

NEW YORK

The Aristocrat of All Foot Engines– Consolidated All Cord Engine



PRICES

With Wrist Joint and Regular Handpiece

$50

With Regular Handpiece, Wrist Attachment and Slip Joint

$55

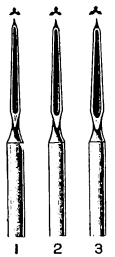
With All Cord Handpiece

$52

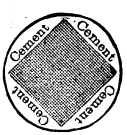
CONSOLIDATED

DENTAL MFG. CO.

The Davis Crown Reamer



A pin fitting a root as snugly as this is stronger and safer than



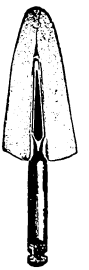
one fitting like this

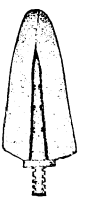
THE Davis Crown Reamer enables you to fit the Davis Crown Pin as accurately as if the metal was poured into the root. The Reamer removes the minimum of tooth structure, and a root thus prepared corresponds exactly with the shape of the Davis Crown Pin, which fits into it perfectly its entire length. The Reamer and Pin are made for each other. For successful Crown Fitting use the Davis Crown Reamer.

Made in three sizes to correspond with the three sizes of Davis Crown Pins.

PRICES	
Each	*$ .60*
Per set of 3	*1.75*

Consolidated Dental Mfg. Co.
NEW YORK

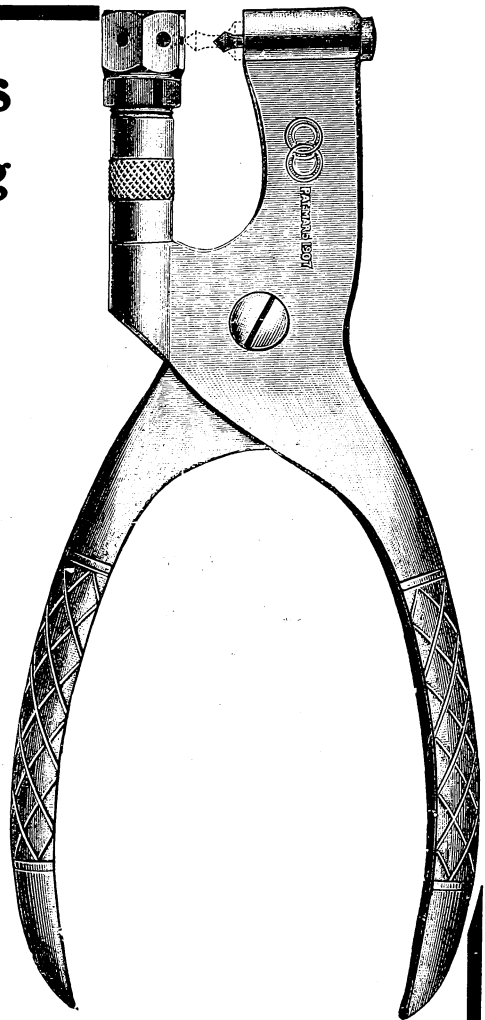




With this wedge - like fit

the whole root must bear the shock of any strain

It Punches Without Tearing



THE plunger of the Consolidated Rubber Dam Punch descends perpendicularly into the hole beneath it. Thus it makes a clean-cut hole in the dam the exact size you want it. When the point descends it does not pull the dam. The hole has no ragged edges and can be stretched without causing the dam to rip.

Consolidated Rubber Dam Punch

¶ The Consolidated Rubber Dam Punch has six punching holes of different diameter. The cylinder can be freely turned while the dam is in place, and there is ample space to punch the widest dam at any point.

¶ Why use old-fashioned punches that tear holes in the dam and waste it? Patients dislike this part of dental treatment, and you can avoid the usual fussing and fitting and repetition by cutting your dam right with a Consolidated Rubber Dam Punch. Besides saving money, you reduce the patient's discomfort, and that is a great asset in your favor in these days.

Price . . . $3.50

Sold by leading dental dealers everywhere

CONSOLIDATED DENTAL MFG. CO.

New York **Chicago** **Philadelphia**
Boston **Detroit** **Cleveland**

BEWARE

Dentists complain to us that they do not receive Davis Crowns when they order them.

The Cause and the Remedy

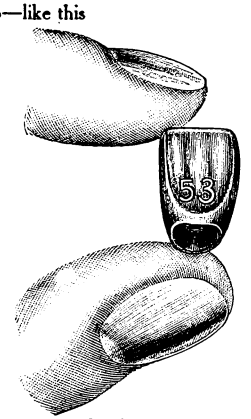
When "Davis" Crowns are ordered, many dentists receive the "Davis" Pin with some substitute porcelain. This substitution is made for reasons in which financial conditions and profit predominate.

It is, therefore, common practice to send you some other crown with a "Davis" Pin, when you ask for a "Davis."

When personal financial reasons, instead of customers' accommodation, dictate a business policy, it is time for the customer to look out for himself.

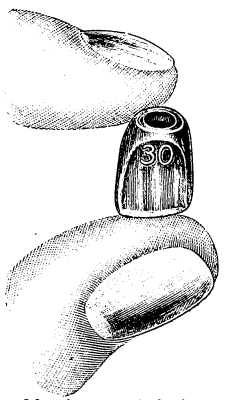
How to recognize the "Davis" Crown at a glance, and thus disarm the substitutors

If you can read the number with the biting edge up—like this



You have a "Davis"

If you read the number with the biting edge down—like this

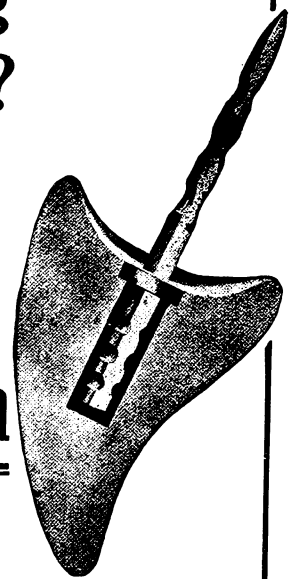


You have an imitation or a substitute

Consolidated C&D Dental Mfg. Co.

Are You Having Crown Troubles?

If you are experiencing difficulties in getting crowns to give absolute satisfaction there is just one thing to do



Use the Davis Crown

Read these letters from dentists who use the Davis Crown day in and day out with uniform satisfactory results.

"I have used the Davis Crown for a number of years with the success which I was unable to get with other crowns in the market, and I can safely recommend them to anyone."

"I have just completed a full upper bridge for a lady, and must say that I found the front set of sixes in the Davis Crown fit the case exactly, and the effect was simply fine."

"We all are after the best results. The 'crown' that crowns at once the root, and the success is the Davis Crown. The molds are most practical and have given me the satisfaction I failed to find in other detachable crowns."

"I have used the Davis Crown exclusively the past two years in all cases, front of the molars where it is possible to use a porcelain crown. Find them easier to fit, as crown and post are detached; also believe in a round pin as saving tooth structure. The crowns can be ground freely, taking a high polish afterwards, also frequently bake on where necessary. Find a good selection of molds to choose from, as well as shades. I use a great many and see no reason for changing."

When you use the Davis Crown you are not trying an experiment. The Davis Crown is a proved established success

Consolidated Dental Mfg. Co.

WANTS, FOR SALE ETC.

EXCHANGES

NOTE.—Rate for advertising in this department of ITEMS OF INTEREST is ten cents per word including captions, "Wanted," "For Sale," "Exchange," etc., and address. Initials charged as words. Rate for agency advertisements is twenty cents per word. Advertisements should reach us by the 15th of the month to insure insertion in the following month's issue, and are payable in advance.
CONSOLIDATED DENTAL MFG. CO., Publishers, 130 Washington Place, New York, N. Y.

EXCHANGES

6373—FOR SALE—A very busy, good-paying, well-established dental office in Philadelphia. A "once in a lifetime" opportunity for a dentist who will lay "professional ethics" aside. "Too many irons in the fire" reason for selling. Address "D. D. H.," care of ITEMS OF INTEREST, No. 130 Washington Place, New York.

6374—FOR QUICK SALE—$4,000 practice. Dr. Parker, 4002 Cottage Grove, Chicago.

6375—SANITOL STOCKHOLDERS—We will buy 50 shares at $2.85 a share. We will buy and sell all kinds of securities. 'Phone Main No. 2720, C. S. Mather & Sons, Chicago.

6376—WANTED—A graduate of extended experience, full knowledge of all branches, desires to associate with live practitioner. Address No. 6376, care ITEMS OF INTEREST, No. 130 Washington Place, New York.

6377—FOR SALE—Dental practice, with residence and office combined, in growing Oklahoma town. Over $3,300 last year. No opposition. Big territory. Established five years. Address No. 6377, care of ITEMS OF INTEREST, No. 130 Washington Place, New York.

6378—FOR RENT—Ground floor apartment in No. 22 Lenox Ave., near 112th St.; especially suitable for dentist. For terms apply to owner on premises.

6379—WANTED—All-round Pennsylvania registered dentist. Good salary; permanent position. Johnstown Dental Parlors, Johnstown, Pa.

6380—Finest opening for young dentist ever offered in these columns; good town Northern Ohio. Sell at invoice. Owner retiring account other business. Address Lock Box No. 70, Canton, Ohio.

6381—FOR SALE—Prosperous and increasing practice, town of 9,000. Attractive and complete modern equipment. Location right and rent very low. Records open for inquiry and investigation. Price, $1,000, net cash. Dr. W. J. Dwyer, Easthampton, Mass.

6382—FOR SALE—Practice of over $4,000 per year, on the Hudson. Cheap. Address No. 6382, care of ITEMS OF INTEREST, No. 130 Washington Place, New York.

6383—WANTED—To purchase dental office in Michigan; Detroit or suburb preferred. Address "Cash," care ITEMS OF INTEREST, No. 130 Washington Place, New York.

6384—WANTED—First-class gold and plate workman for dental laboratory. State salary required and give references. Address "Alabama," care of ITEMS OF INTEREST, No. 130 Washington Place, New York.

6385—FOR SALE—A $3,000 practice, county seat town South Dakota. Good crops, good prices. At sacrifice for quick sale. Am going out of business. Address "C. H.," care Consolidated Dental Mfg. Co., Chicago, Ill.

6386—WANTED—Operator, Christian, New York registration, for busy office in Greater New York. Excellent opportunity for an operator to broaden his scope of usefulness. No objection to recent graduate of ability if not too young in appearance. Highest salary, with permanent position to rapid, careful worker. Duties to commence Jan. 2, 1912. Give full particulars. Address No. 6386, care of ITEMS OF INTEREST, 130 Washington Place, New York.

6387—FOR SALE—Good practice, established 6 years in a rapidly growing country town on Long Island, twenty miles out of New York. Will help man to establish. No cards. Address "W. L. W.," care of ITEMS OF INTEREST, 130 Washington Place, New York.

6388—FOR SALE—Dental outfit complete. Good as new. J. C. Ott, 1948 N. Camac St., Phila., Pa.

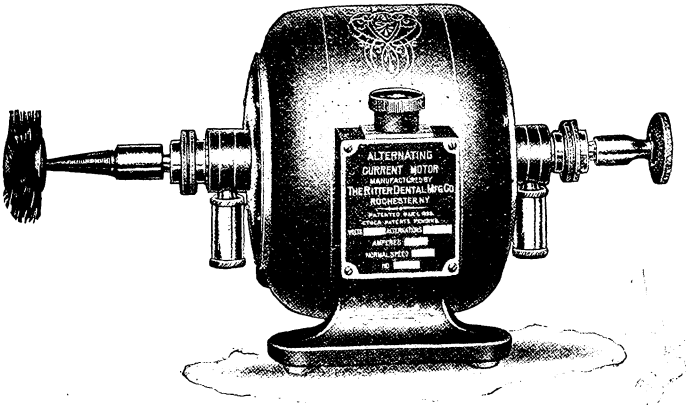
6389—Specialist in oral prophylaxis and cure of pyorrhea, wishes location with orthodontist in city of 100,000 or more inhabitants. Address 6389, care of ITEMS OF INTEREST, 130 Washington Place, New York.

6390—An opportunity of a life time to acquire a dental practice or a partnership. Pennsylvania. Address 6390, care of ITEMS OF INTEREST, 130 Washington Place, New York.

COLUMBIA

Five Dollars a Month

Is all you will have to pay to have a Columbia Electric Lathe in your laboratory, and if you have any prosthetic work at all to do, this electric lathe will pay for itself twice over each month.



¶ In this way you will have from seven to ten months in which to pay for it, according to whether it is for Direct or Alternating Current.

¶ Order one of these Columbia Lathes now, and when you get it you will wonder why you didn't buy one long ago.

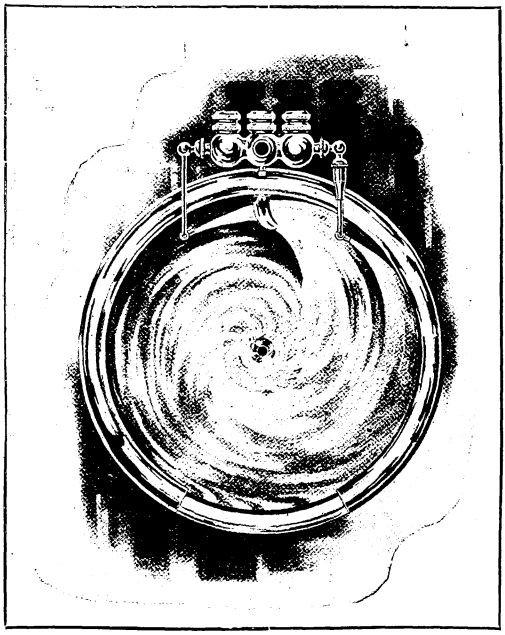
THE RITTER DENTAL MFG. CO.

ROCHESTER, N. Y.

72

WE believe that, in the end, the man who makes the best goods and the man who sells the best goods will be doing business when the other fellow is husking pumpkins.

Therefore, the CLARK spittoon is made as it is and sold as it is.



Note: The bowl of a CLARK Double Bowl Spittoon is flushed from top to bottom.

Send for the book that tells the truth about spittoons.

A. C. CLARK & CO.

Grand Crossing Station Chicago

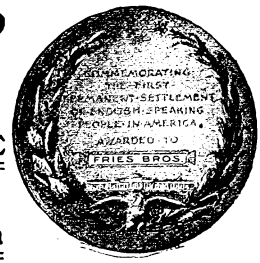
"KELENE"

(PURE CHLORIDE OF ETHYL)

A LOCAL ANAESTHETIC

Also an Adjuvant to Ether

In General Anaesthesia



FRIES BROS., Manufacturers, 92 Reade St., N. Y.

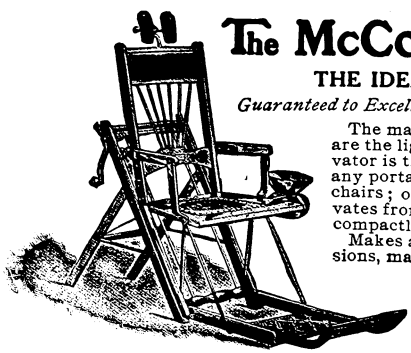
Indispensable in Dentistry and Minor Surgery

Local and General

- ALWAYS READY FOR INSTANT USE.
- No disturbance to system from injection of drugs.
- Avoids use of any syringe.
- Easily applied without risk.
- Satisfactory to Practitioner and Patient.
- Touches the exact spot desired.
- Hypodermic needle dispensed with.
- Esteemed most highly by all who have used it.
- Saves time, patience and material.
- It may be repeated indefinitely without harm.
- AUTOMATIC TUBES render administration Exact and Satisfactory.

Sole Distributors for the United States

MERCK & CO., New York, Rahway, St. Louis



The McConnell Portable Chair

THE IDEAL LOW-PRICED DENTAL CHAIR

Guaranteed to Excell all other Portable Dental Chairs regardless of price

The material is so scientifically distributed that while they are the lightest chair, they are also the strongest. The elevator is the most powerful, practical and durable found on any portable chair. Equalled only in high grade stationary chairs; operated with ease and safety while occupied. Elevates from 15 to 36 inches. Weighs 35 pounds and folds most compactly of any chair.

Makes a desirable office chair for extracting, taking impressions, making examinations. Fully guaranteed.

Price, only $16.50. Nickel-plated Spittoon and Holder, $1.50 extra.

THE SOUTHERN NOVELTY WORKS

DEMOREST, GA., U. S. A.

SANITOL

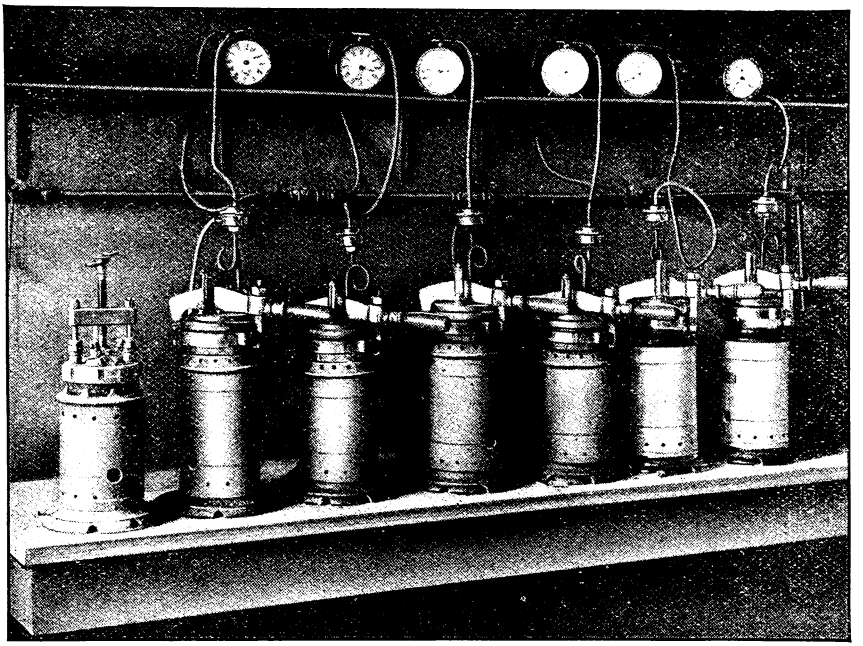
POWDER OR PASTE

A DENTIFRICE FOR YOUR RECOMMENDATION

Dental Sodium Dioxide
For BLEACHING
STERILIZING
SAPONIFYING
4 in 1 OBTUNDING

Na_2O_2

Regarding application read Am. Text Book Op. Dentistry (3d Ed.)
$1 per Tin from Dealers or
ROESSLER & HASSLACHER CHEM. CO.
NEW YORK



"IN OUR RUBBER WORK DEPARTMENT WE EMPLOY EIGHT MEN"

So says the proprietor of the laboratory using the battery of Vulcanizers pictured here. "THE VULCANIZERS AVERAGE ABOUT 10 PLATES EACH PER DAY"

You can easily calculate the output of this busy spot, and we needn't call attention to the deduction to be made from the above terse but significant sentences. A Vulcanizer that will turn out thousands of plates per year under the severest kind of conditions should appeal to you as the right kind for your laboratory.

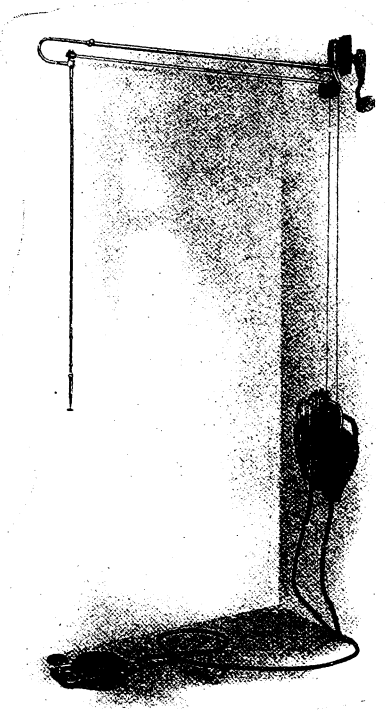
The prices:—Lewis, $16.00; $18.00; $20.00; Edson, $30.00

The Edson is shown at the left of the picture

"Vulcanizers and Vulcanizing" is a booklet you should have because it contains lots of information about the process of vulcanizing, and is not merely an advertising booklet. Catalog "C" of Vulcanizers and appurtenances is yours also if you will tell us your address.

BUFFALO DENTAL MANUFACTURING CO.

BUFFALO, N. Y., U. S. A.



Not only Sit Up and Take Notice but Stand Up.

That's what you will do when you see our New Engine "B." One dentist writes us, "My engine has not been out of commission one day in *Twelve Years.*"

That's the way the Sims Engine *stands up.*

In no place is cleanliness more necessary than in the dental office, and for this, water is absolutely necessary. Having water you can not have a more convenient power. It goes all the time.

One set of plumbing pipes for an engine and fountain spittoon.

If you want to know all about the new things drop us a card for our Artistic Catalog.

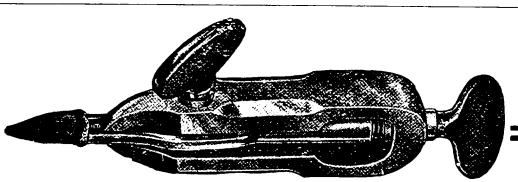
We have eight engines, therefore we can furnish one, which would be right for your office.

Some things are made to look at, but the power dental engine helps you turn out work. It's a necessity, not an expense. If you get the right one.

Price—Sims Engines - $65.00 to $100.00

SIMS HYDRAULIC ENGINE CO.

Lancaster, Pa., U. S. A.



One Dentist Would Not Take Fifty Dollars In Gold For

his LITTLE GIANT Post Puller if he could not replace it; he sent me a letter stating that.

Over twelve thousand dentists are using the LITTLE GIANT because they *save* nearly an hour of their time every time they use it and, furthermore, run no risk of splitting the root, or of causing the patient any pain.

One operation of the LITTLE GIANT will convince you it is as necessary to a dentist's equipment as a set of forceps.

Made to last a lifetime and the first cost is the *only* cost. Price $3.00 —from your supply house.

F. H. Skinner **7 W. Madison St., Chicago**

A Pointer For You

Here is a dental innovation for you—an oxygen germicide that is non-caustic, non-irritating, and non-toxic—a perfect deodorant, and an absolutely dependable permanent root canal filling—**all in one.**

With "DENTONE"—and with "DENTONE" alone—one to three treatments only are necessary in the worst case of putrescent pulp.

"DENTONE" affords immediate relief—it generates 1.32% of nascent, immediately available oxygen that never fails.

Dentists everywhere are learning that "DENTONE" helps build and hold their clientele—increases it—and helps them make more money.

Use "DENTONE" as a DEODORANT, a DISINFECTANT, and a PURIFIER one time and you will use it every time.

It will never disappoint you.

Absolutely not once.

A large package costs but $1.50, and just one trial will prove its efficiency under all conditions.

All dental supply depots have it.

DENTAL PROTECTIVE SUPPLY COMPANY

2231 Prairie Avenue

CHICAGO, ILL., U. S. A.

THERE ARE NO FAILURES

When the directions are followed

When shades are well-chosen, fillings cannot be detected. With reasonable care in manipulation, fillings do not discolor or bleach out.

It cannot injure pulps, because it contains no trace of arsenic and has less acid in its liquid than any other cement. With proper cavity preparation and a little pains in insertion and finishing, fillings endure almost indefinitely.

SHADES

1—WHITE	5—DARK-YELLOW	9—BLUISH-LIGHT-GRAY
2—LIGHT	6—YELLOWISH-LIGHT-GRAY	10—DARK-GRAY
3—LIGHT-YELLOW	7—LIGHT-GRAY	11—GUM-PINK
4—YELLOW	8—GRAY	

PACKAGES

1-SHADE HALF PORTION	$ 2.25	6-SHADE FULL PORTION	$22.00
1-SHADE FULL PORTION	4.00	10-SHADE HALF PORTION	18.00
6-SHADE HALF PORTION	11.50	10-SHADE FULL PORTION	35.00

THE L. D. CAULK CO., Mfg. Agts. for N. & S. America & Japan

SHADE GUIDE FOR DE TREY'S SYNTHETIC CEMENT

To select the Cement Shades compare with any Tooth Shade Guide

SYNTHETIC	Twentieth Century	H. D. Justi & Son	Consolidated Dent. Mfg. Co.	C. Ash & Sons Co.	S. S. White Dent. Mfg. Co.
1—White	PURE		WHITE		
2—Light	4-light	1 . .	. . 60 . .	XB1 . .	34 . .
3—Lt. Yellow	9 . .	13 . .	. . 63 . .	B2 . .	37 . .
4—Yellow	16 . .	5 . .	. . 68 . .	B3 . .	41 . .
5—Dark Yellow	21-dark	6-yellow	. . 69 . .	F5 . .	43 . .
6—Yel. Lt. Gray	5 . .	13-light	. . 61 . .	B1-dark	28 . .
7—Light Gray	3-nearest	9 . .	. . 54 . .	D1-light	30-light
8—Gray	11-tip only	14-only ap-	. . 54 . .	D1 . .	31 . .
9—Blue Lt. Gray	2 . .	7 proximate	. . 52 . .	C2 . .	27-dark
10—Dark Gray	13-tip	11 . .	. . 58 . .	D1 . .	32-blue
11—Gum Pink					

ASK YOUR DEALER FOR A COPY OF THIS SHADE GUIDE ON A CELLULOID CARD

BE FAIR TO YOURSELF

We believe that sooner or later you will use deTrey's Synthetic Cement regularly in your practice.

The only thing that can convince you of its absolute superiority is a trial.

We are anxious just now for every dentist to find for himself the qualities which we know this material possesses.

Therefore, if you have doubts and mental reservations, we suggest that you get the smallest package—$2.25—read the directions and follow them absolutely.

If the agent for any competing material assumes to make tests of Synthetic Cement to its disadvantage, make mixes of both cements yourself and subject them to the same tests.

Be fair to yourself.

THE L. D. CAULK CO.

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TWO powders might be so similar in fineness and pigmentation that little difference would be noticeable in the mix, and yet one would result in a cement mass of satisfactory density and toughness, and the other in a mass of only fair density and very brittle. The former might be safe at a cervical margin, and the latter hazardous. Also the more brittle a cement the more apt it is to show shrinkage during setting.

Ames' Crown and Bridge Cement **A Brittle Cement**

The Test of Texture: Tests of breaking stress of Ames' Crown and Bridge Cement, and others that appear quite similar in the mix, show that the latter break at about 100 lbs. into a large number of particles, while Ames' C. & B. stands 150 lbs. and breaks into only three or four parts, showing greater integrity and less brittleness. *Ames' does not shrink.*

AMES' New Process Oxyphosphate of Copper

Comparative crushing tests, recently made under conditions guaranteeing impartiality, show new Process to be two and one-half times as strong as its nearest competitor.

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If you are not supplied satisfactorily, order of us direct and receive prompt attention.

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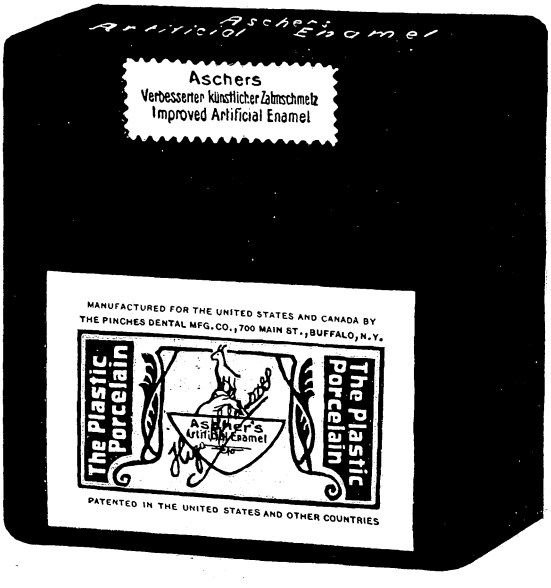

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THIS should be the aim of every dentist in extracting teeth PAINLESSLY. Unless you can be sure that the preparation you are using is absolutely SAFE and RELIABLE, you are not only jeopardizing your own reputation, but the lives of your patients.

Dr. R. B. WAITE'S

Antiseptic Local Anaesthetic

is a GUARANTEE of PERFECT SAFETY, on account of the Purity of the Ingredients and the Perfection of Combination. It has stood the test of time and has long been the Standard by which all others are gauged.

We want you to KNOW IT FOR YOURSELF—TRY IT—THAT IS ALL WE ASK. Give us an opportunity to prove our claims.

FREE FOR A TRIAL

A full ounce dollar bottle or box of 12 hermetically sealed ampules, upon receipt of 25 Cents to cover the expense of packing and postage, providing you have not yet been so favored.

PRICES

In one or two ounce bottles

1 oz., $1.00; 6 ozs. $5.00; 20 ozs. $15.00

In 1½ CC Ampules

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In 2½ CC Ampules

1 box, $1.00; 6 boxes, $5.00; 20 boxes, $15.00.

Manufactured only by

The Antidolar Manufacturing Co.

20 Main Street **Springville, Erie Co., N. Y.**

ESTABLISHED 1865

SAMSON RUBBER

EUGENE DOHERTY

DENTAL RUBBERS

Trade Mark
No. 3788

Registered
June 20, 1876

RETAIL PRICE-LIST.

	Per lb.	5 lb. lots	10 lb. lots	25 lb. lots	50 lb. lots
SAMSON RUBBER	$3.50	$3.35	$3.20	$3.10	$3.00

	Per lb.	5 lb. lots	10 lb. lots	25 lb. lots
Pink Rubber, light shade Pink Rubber, medium light shade Pink Rubber, deep shade White Rubber		$5.50	$5.00	$4.50	$4.00

	Per lb.	5 lb. lots	10 lb. lots	20 lb. lots	40 lb. lots
No. 1 Rubber, medium red					
No. 2 Rubber, extra light red	$2.95	$2.80	$2.65	$2.40	$2.25
Mottled Rubber, light or dark shade	3.25	3.00	2.70	2.60	2.40

	Per lb.	5 lb. lots	10 lb. lots	20 lb. lots	40 lb. lots
Para Black Rubber Pure Black Rubber Jet Black Rubber	$3.50	$3.25	$3.10	$3.00	$2.90

	Per lb.	5 lb. lots	10 lb. lots	20 lb. lots	40 lb. lots
Gutta Percha, Pink or White, for Base Plates	$2.90	$2.80	$2.70	$2.60	$2.50

	Per lb.	5 lb. lots	10 lb. lots	25 lb. lots	50 lb. lots
Eugene Doherty's New Hold Fast Maroon Colored Rubber Maroon Rubber, light shade Maroon Rubber White Gutta Percha, in round sticks for Permanent Filling	$3.50	$3.00	$2.90	$2.80	$2.70

	Per lb.	10 lb. lots	25 lb. lots
Red Vulcanizable Gutta Percha for plates	$4.00	$3.75	$3.50
Black Vulcanizable Gutta Percha for plates	4.50	4.25	4.00
Maroon Vulcanizable Gutta Percha for plates	4.25	4.00	3.75
Pink Vulcanizable Gutta Percha for coating purposes	6.50	6.25	6.00

	Per lb.	5 lb. lots	10 lb. lots	25 lb. lots
Deep Orange Rubber	$3.00	$2.80	$2.60	$2.40
20-Minute Rubber for repairing purposes	3.00			
Black or Red Flexible or Palate Rubber for lining plates	3.50			

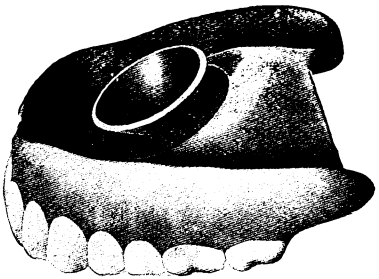
	Per lb.	5 lb. lots	10 lb. lots	20 lb. lots
NONPAREIL RUBBER	$2.50	$2.35	$2.25	$2.20
New Idea Rubber	3.00	2.65		

	Per yard roll	Per half yard roll
Rubber Dam, medium, 5 and 6 inches wide	$2.15	$1.10
Rubber Dam, thin, 5 and 6 inches wide	1.60	.80

	Per lb.	5 lb. lots	15 lb. lots	20 lb. lots
No. 1 Weighted Rubber for lower plates No. 2 Weighted Rubber for upper and lower plates Black Weighted Rubber for lower plates	$4.00	$3.80	$3.60	$3.30

EUGENE DOHERTY

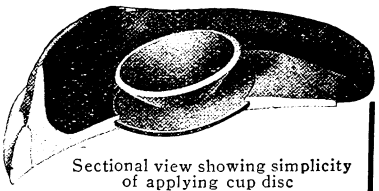
110 & 112 Kent Avenue **BOROUGH OF BROOKLYN, N. Y., U. S. A.**



Showing cup disc in position in denture

FOUND AT LAST

A device that absolutely holds a denture secure



Sectional view showing simplicity of applying cup disc

A Marvelous Invention in Denture Construction.

Is scientific in principle, simplicity in applying, positive in results.

An important feature of The Whitaker Denture Vacuum is the ease with which it may be applied. **No extra time is consumed** and it can be attached to any plate at any time. **Plate cannot drop or sag, the construction tells you it must hold the denture.**

PRICE

Per box of Seven Vacuums, complete Outfit - - - **$3.00**

If your dealer does not handle it we will be pleased to supply you

Cup disc that holds denture; cannot drop or sag

The Whitaker Denture Vacuum Co., Inc.

Amsterdam, N. Y., U. S. A.

Patented in United States and Foreign Countries
Patented 1911

Foil disc that forms chamber space to receive cup disc

TOUCH A DROP OF WATER WITH A STIFFENED PAPER POINT

and see how quickly it absorbs it. That's what it does to a pulp canal, draws the moisture all out of it. Or place a point in a canal after drying by other methods and see the result. You are liable to find moisture.

Aseptic—Long and Stiff, handled without pliers
25 Cents per hundred

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For cleaning teeth, polishing fillings, etc.
The neatest, cleanest, quickest polisher known
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Manufactured by FRANK B. DARBY, Elmira, N. Y.
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Pustolene has solved the great problem of abscesses for thousands of dentists throughout the globe and has made the treatment of abscesses a delight. Pustolene will absolutely cure an abscess in less time than any other remedy known to the profession, and with less work and worry. Can we prove it? If you are in doubt, write us for a FREE sample and we will leave it to you as judge.

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The only all Gold Lining ever made. Endorsed by the highest dental and medical authorities. May be applied to new or old rubber plates, giving them all the beauties of solid gold plates.

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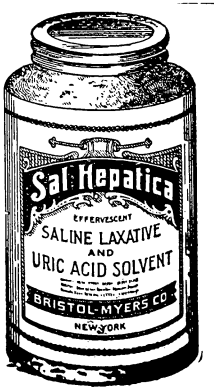
Write for free samples.



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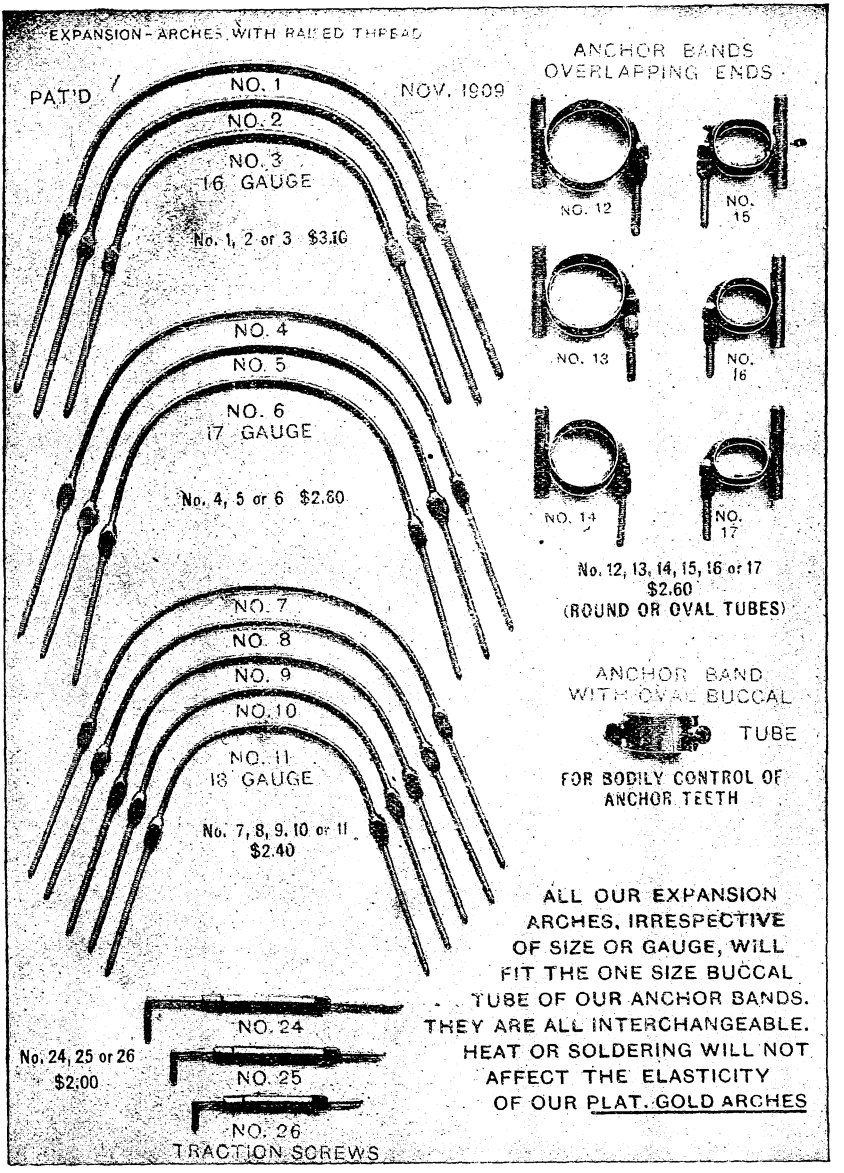

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Write for illustrated catalogue showing latest improvements

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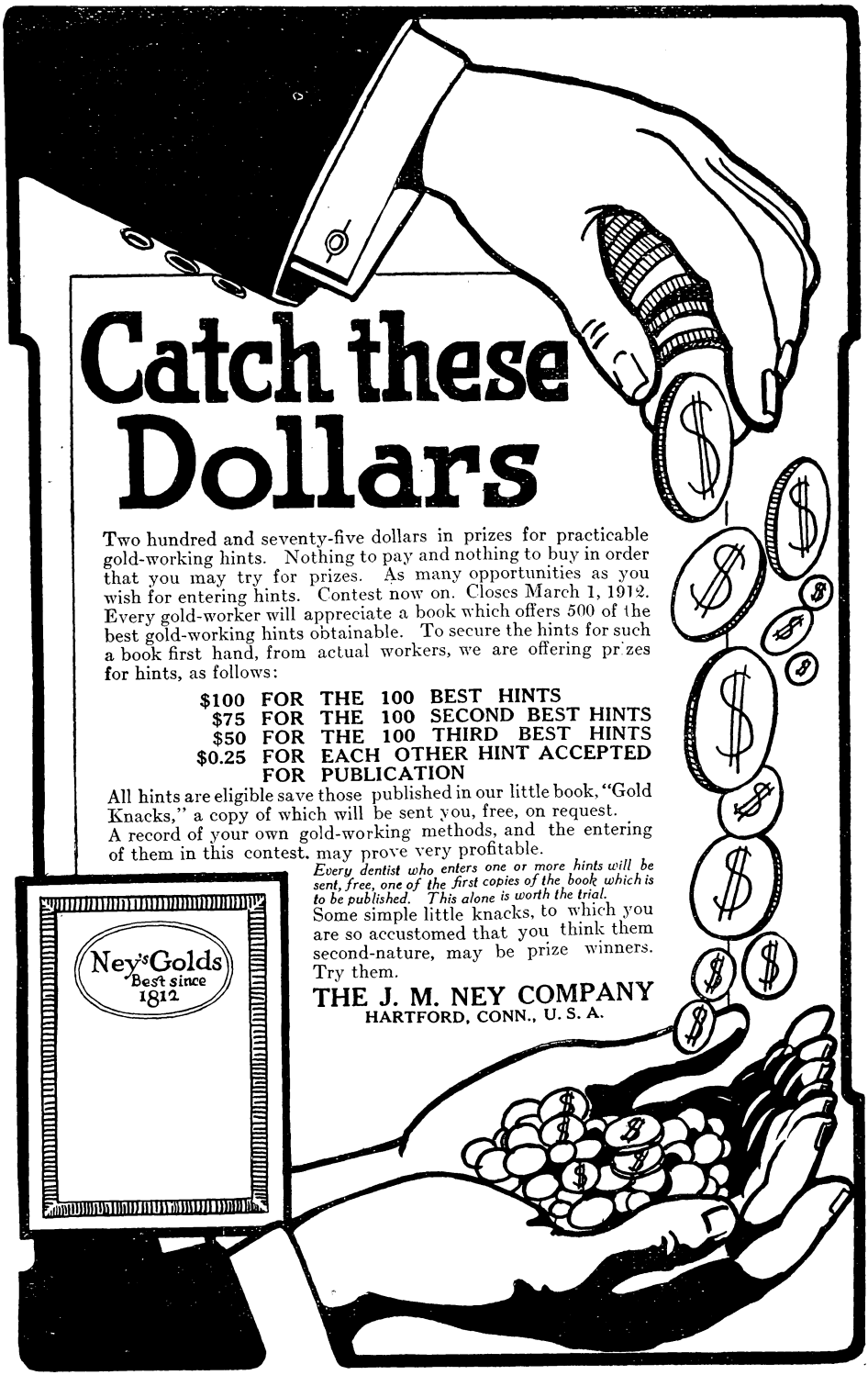

Catch these Dollars

Two hundred and seventy-five dollars in prizes for practicable gold-working hints. Nothing to pay and nothing to buy in order that you may try for prizes. As many opportunities as you wish for entering hints. Contest now on. Closes March 1, 1912. Every gold-worker will appreciate a book which offers 500 of the best gold-working hints obtainable. To secure the hints for such a book first hand, from actual workers, we are offering prizes for hints, as follows:

$100 FOR THE 100 BEST HINTS
$75 FOR THE 100 SECOND BEST HINTS
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$0.25 FOR EACH OTHER HINT ACCEPTED FOR PUBLICATION

All hints are eligible save those published in our little book, "Gold Knacks," a copy of which will be sent you, free, on request. A record of your own gold-working methods, and the entering of them in this contest, may prove very profitable.

Every dentist who enters one or more hints will be sent, free, one of the first copies of the book which is to be published. This alone is worth the trial.

Some simple little knacks, to which you are so accustomed that you think them second-nature, may be prize winners. Try them.

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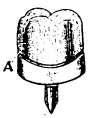
HARTFORD, CONN., U. S. A.

Ney's Golds
Best since 1812

DON'T MURDER YOUR CROWN AND BRIDGEWORK

GET in line with a practical method that is used by thousands of Dentists the world over.

See This Little Jigger? ⟶



This is what a **Tin Trial CROWN** looks like after mounting and just before it is converted into a gold crown, that is going to fit, articulate, have contact, and a natural form. In fact be the kind of a job that will be a credit to you.

You get it right, get it quickly and get it when you want it.

Your Lady Assistant Can Do All The Work, Except Fitting The Trial Crown, Which You Do At The Chair In Five Minutes.

This Trial Crown idea is only one feature of the **SHARP SEAMLESS CROWN OUTFIT,** but it is a winner.

Below is a cut of our No. 4 Outfit

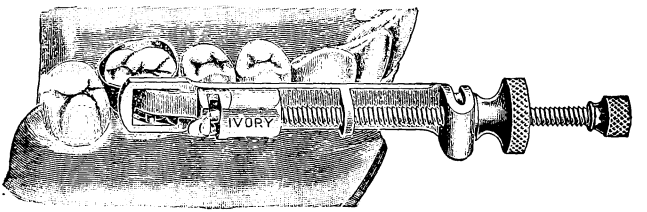
Our book will cost you simply the effort of asking for it.

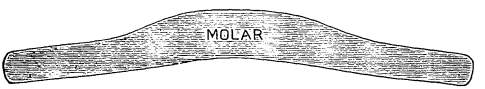
THE W. M. SHARP COMPANY

131 PARK AVENUE - - BINGHAMTON, N. Y., U. S. A.

Have you got an old Crown outfit that does not give satisfaction?
We have a proposition for you

Ivory Band Matrix No. 8

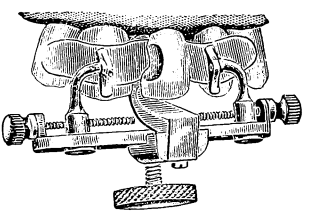


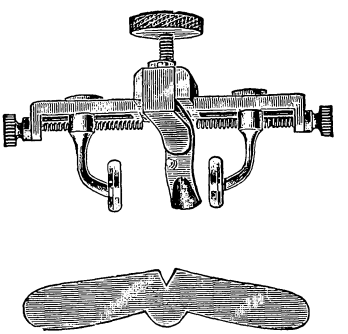


This Matrix Retainer reaches well back on the side of the alveolar arch, and the band makes a complete circle of the tooth. It is especially serviceable when an entire crown is to be built up or a wax impression made for an inlay (celluloid bands may be used for this work) and with the retainer in position the teeth may be closed and the correct occlusion obtained.

Price, each, with 1 dozen bands - - $3.50
Extra bands, per dozen - - - - .25

Ivory Anterior Matrix No. 6





The two labial arms of this matrix retainer are adjustable, and a three-point contact is obtained by the palatal jaw and the levelling face on the labial arms, giving the greatest possible hold to be obtained on the anterior teeth, and independent of the band. A screw in the palatal jaw presses the band against the tooth where it is most needed, and gives support against the impact of the filling.

Price, each, with 1 dozen bands - - $3.50
Price, bands, per dozen - - - - .25

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Phenakit

A Safe Silicate Cement

There are Silicates, and Silicates,

but the clinical experience of conservative men has proven that "PHENAKIT" is the one and only silicate cement that does not injure the pulp.

"PHENAKIT" has stood the test of time and is used by the most conservative dental practitioners in this country; their duplicate orders proving that it meets all requirements.

"PHENAKIT" may be packed with any steel instruments that are clean.

"PHENAKIT" fillings will not discolor.

"PHENAKIT" is adhesive, translucent and takes a high polish.

A "Trial Set" consists of

One box color L (Light Yellow) complete (with liquid) . .	$2.50
One extra bottle of powder D (Light Pearl Gray)	1.50
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One bottle varnish, free	
Total amount	$5.00

WE DO NOT FURNISH SAMPLES. Order through your dealer or direct from the importer

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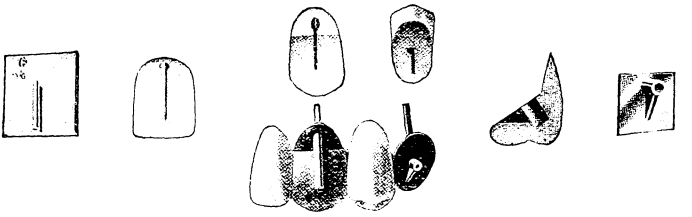
When a Pin Facing Breaks

Do you say:—Oh! very well, such happenings will occur?

Then follows an unsatisfactory and unsanitary repair.

When a Steele facing breaks, the fault, if fault there be, can be remedied and a mechanically perfect and sanitary repair made, rendering the structure oft-times better than before the break occurred.



Steele's Interchangeable Posteriors (all porcelain) possess the same advantages of absolute interchangeability, sanitary application and ease of manipulation that have made the facings popular.

They supply a porcelain masticating surface, avoid the obnoxious display of gold at a saving in cost as compared with all gold construction.

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Dental Graduate School

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Offers Dr. Peeso's Course in

ADVANCED

CROWN AND BRIDGE WORK

As well as facilities for graduate instruction in all other dental subjects

A PERMANENT school for Post-Graduate work including removable and fixed Crown and Bridge practice.

The large clinical and dispensary service of the University affords ample scope for the study of the various applications of dental science and art to the demands of practice. The Crown and Bridge course furnishes thorough training in the technique of Preparation of Supports and Abutments, the essential foundation of successful work, as well as instruction in the practical application of Porcelain to this branch of prosthetic technique.

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Permanently located in the center of Philadelphia and not under the control of any other dental institution, offers the Dental Practitioner, and also the new Graduate in Dentistry, every facility to perfect himself in practical

REMOVABLE AND STATIONARY CROWN AND BRIDGE-WORK

covering every phase of this important branch of Dentistry, the proper use of the Casting Process and of Porcelain in Crown and Bridge-Work.

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The laboratory is under the personal supervision of ARTHUR N. CROSS, who was the instructor in the former "Peeso's Post-Graduate School."

Also a practical course in

PORCELAIN WORK AND GOLD INLAYS

Taught in a thorough manner by Dr. ANDREW F. JACKSON, including Porcelain Inlays, Crowns, Jacket Crowns, the Staining of Teeth, in fact everything that is known to be practical to Dentists in the use of Porcelain.

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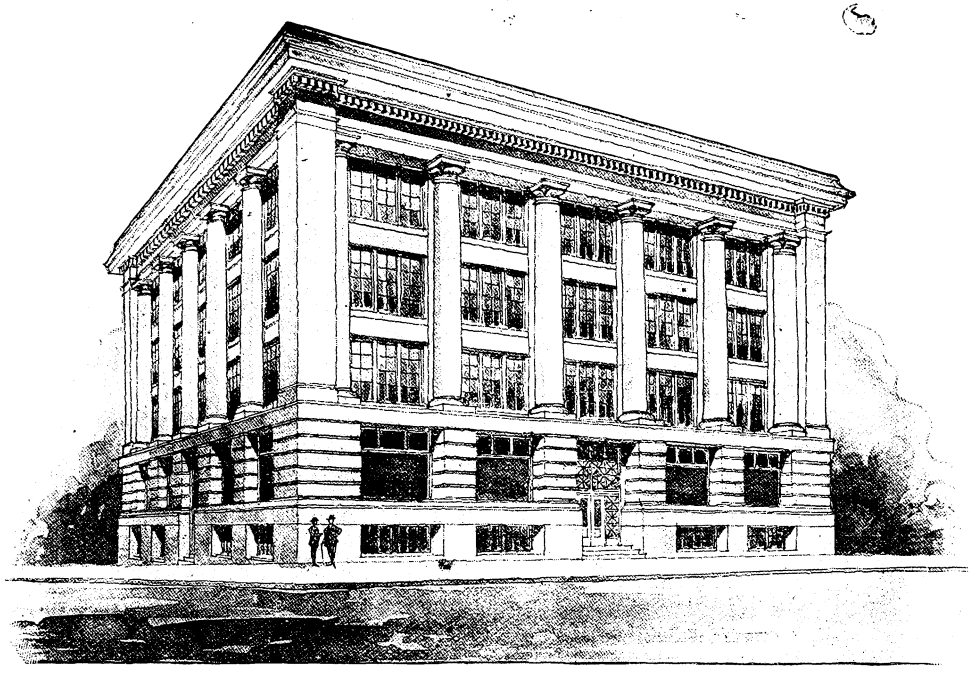

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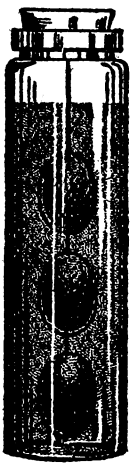

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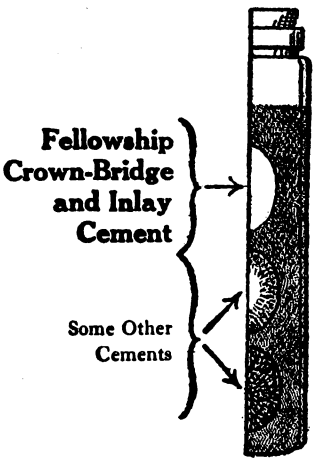

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